


Liftcrane Boom Capacities With Luffing Jib Attached

Boom No. B65:685-680
Luffing Jib No. LJ11:680-681-682
with Mast No. M11:684
661,300 lb VPC (Variable Position Counterweight)
360 Degree Rating


MLC650 VPC-MAX SERIES 2


 **LIFTING CAPACITIES:** Lifting capacities for various boom lengths, luffing jib lengths, boom-to-luffing jib angles, and boom operating radii are for freely suspended loads and may be based on percent of static tipping or strength of structural components. Capacities must be reduced by applicable deducts.


Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom point sheaves, is considered part of load. Weight of luffing jib and 40,000 lb suspended beneath luffing jib point sheaves have been included in capacity determination. Boom is not to be lowered beyond radii where combined weights are greater than rated capacity. Where no capacity is shown, operation is not intended or approved.

OPERATING CONDITIONS: Machine to operate on a firm, level, and uniformly supporting surface. Supporting surface and bearing turntable are to be level within a tolerance of 1/2 in. in 10 ft. During operation, luffing jib must be maintained at proper boom-to-luffing jib angle shown in table. Refer to Luffing Jib Rigging **No. 84038308**, Mast Rigging **No. 84050187**, Wire Rope Specifications chart **No. 9862-A**, Counterweight Arrangements chart **No. 9349-A**, Luffing Jib Raising Procedure chart **No. 9536-A**, and Wind Conditions chart **No. 9538-A**. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to the Operator Manual for operating guidelines.

MACHINE TRAVEL: Machine to travel on a firm, level, and uniformly supporting surface. Boom and luffing jib must be within angle range shown in capacity chart. Refer to Maximum Allowable Travel Specifications chart **No. 9537-A**.

 **OPERATING RADIUS:** Operating radius is horizontal distance from axis of rotation to center of vertical hoist line or load block.



 **BOOM ANGLE:** Boom angle in degrees (°) is angle between horizontal and centerline of boom butt and inserts, and is an indication of operating radius. In all cases, operating radius shall govern capacity.

 **BOOM POINT ELEVATION:** Boom point elevation is vertical distance from ground level to centerline of boom point shaft.

MACHINE EQUIPMENT: Machine equipped with VPC-MAX, 36 ft 6 in. crawlers, 60 in. or 80 in. treads, 36 ft 1 in. live mast, 118.1 ft mast, 16 part boom hoist reeving, boom support straps, 20 part luffing jib hoist reeving, luffing jib and backstay support straps, and 661,300 lb VPC.

Select counterweight position from Luffing Jib Raising Procedure chart **No. 9536-A** that will allow raising and lowering of boom and luffing jib length. Counterweight position selection may be changed with boom and luffing jib on ground or while boom and luffing jib are within operating range of capacity chart.

Consult Chart **No. 9534-A** for luffing jib capacities.

Luffing Jib Position During Operation	
 Luffing Jib Length Feet	 Boom-to-Luffing Jib Angle Degrees
85.3 - 105.0	135
114.8 - 173.9	150
193.6 - 331.4	169

Explanation of Symbols



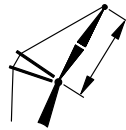
Luffing Jib No. LJ11:680-681-682
+
Boom No. B65:685-680



VPC (Variable Position Counterweight)



360 Degree Rating



Luffing Jib Length



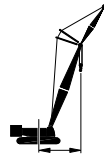
Boom-to-Luffing Jib Angle



Boom Length

REFERENCE ONLY!

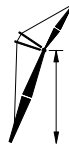
Explanation of Symbols
(continued)



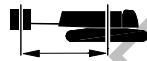
Operating Radius
(see page 1)



Boom Angle
(see page 1)



Boom Point Elevation
(see page 1)



Counterweight Position
from Axis of Rotation

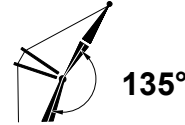
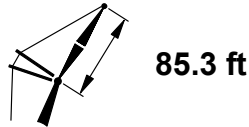


Lifting Capacities
(see page 1)

REFERENCE ONLY!

MLC650 VPC-MAX S-2

ASME B30.5

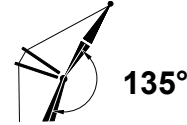
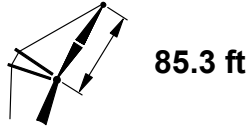


183.7 ft				
ft	°	ft	lb	lb
32	83.0	192.0	773,600	773,600
34	82.4	191.7	773,600	773,600
36	81.7	191.4	763,300	773,600
38	81.1	191.0	702,000	773,600
40	80.5	190.6	647,800	773,600
45	78.9	189.6	536,000	773,600
50	77.3	188.4	448,700	773,600
55	75.7	187.1	377,500	773,600
60	74.0	185.6	319,200	727,600
65	72.4	183.9	270,700	659,900
70	70.7	182.1	229,700	600,800
75	69.1	180.2	194,500	548,900
80	67.4	178.0	164,100	502,900
85	65.6	175.7	137,500	461,800
90	63.9	173.2	114,100	425,000
95	62.1	170.5	93,200	391,700
100	60.3	167.5	74,600	361,500
105	58.5	164.4	57,900	334,100
110	56.6	161.1	42,800	308,900
115	54.7	157.5	29,000	285,900
120	52.7	153.6		264,600
125	50.7	149.4		245,000
130	48.6	145.0		226,900
135	46.4	140.1		210,000

203.4 ft				
ft	°	ft	lb	lb
36	82.5	211.3	766,500	773,600
38	82.0	211.0	704,700	773,600
40	81.4	210.7	650,000	773,600
45	80.0	209.7	537,200	773,600
50	78.5	208.6	449,700	773,600
55	77.1	207.4	379,000	773,600
60	75.6	206.1	320,300	718,900
65	74.2	204.6	271,400	652,300
70	72.7	203.0	230,100	594,000
75	71.2	201.3	194,700	542,700
80	69.7	199.4	164,000	497,200
85	68.2	197.3	137,200	456,500
90	66.6	195.1	113,500	420,000
95	65.1	192.7	92,500	387,000
100	63.5	190.1	73,700	357,000
105	61.9	187.4	56,800	329,700
110	60.2	184.5	41,600	304,700
115	58.6	181.4	27,700	281,700
120	56.9	178.1		260,500
125	55.2	174.5		241,000
130	53.4	170.8		222,800
135	51.6	166.7		205,900
140	49.7	162.4		190,200
145	47.8	157.9		175,500
150	45.9	153.0		161,800

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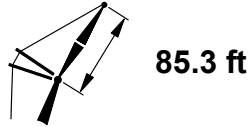


223.1 ft				
ft	°	ft	lb	lb
38	82.7	230.9	702,800	728,800
40	82.2	230.6	647,700	728,800
45	80.9	229.8	534,100	728,800
50	79.6	228.8	445,900	728,800
55	78.2	227.7	375,500	728,800
60	76.9	226.5	317,100	706,900
65	75.6	225.1	267,900	641,200
70	74.3	223.7	226,300	583,800
75	72.9	222.1	190,600	533,100
80	71.6	220.4	159,700	488,000
85	70.2	218.5	132,700	447,700
90	68.8	216.5	108,900	411,400
95	67.4	214.4	87,800	378,700
100	66.0	212.1	68,800	348,900
105	64.6	209.7	51,800	321,700
110	63.1	207.1	36,400	296,900
115	61.7	204.4	22,400	274,000
120	60.2	201.5		252,900
125	58.7	198.4		233,400
130	57.1	195.1		215,300
135	55.6	191.6		198,400
140	54.0	187.9		182,700
145	52.3	184.0		168,000
150	50.7	179.8		154,300
155	49.0	175.4		141,400
160	47.2	170.7		129,200
165	45.4	165.8		117,800

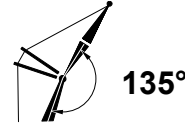
242.8 ft				
ft	°	ft	lb	lb
40	82.8	250.5	648,200	683,200
45	81.6	249.7	533,800	683,200
50	80.4	248.8	445,100	683,200
55	79.2	247.8	374,200	683,200
60	78.0	246.7	316,200	683,200
65	76.8	245.5	267,100	632,400
70	75.6	244.2	225,200	575,800
75	74.3	242.7	189,300	525,800
80	73.1	241.2	158,300	481,400
85	71.9	239.5	131,100	441,500
90	70.6	237.7	107,100	405,600
95	69.3	235.8	85,800	373,200
100	68.1	233.7	66,800	343,600
105	66.8	231.5	49,700	316,700
110	65.5	229.2	34,200	291,900
115	64.2	226.7	20,100	269,200
120	62.8	224.1		248,200
125	61.5	221.3		228,800
130	60.1	218.4		210,700
135	58.7	215.3		193,900
140	57.3	212.1		178,300
145	55.9	208.6		163,600
150	54.4	205.0		149,900
155	53.0	201.2		137,000
160	51.4	197.1		124,900
165	49.9	192.9		113,400
170	48.3	188.4		102,700
175	46.7	183.6		92,500

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85.3 ft



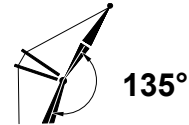
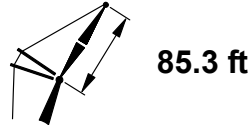
135°

262.5 ft				
ft	°	ft	lb	lb
45	82.3	269.7	628,500	634,400
50	81.1	268.8	528,600	634,400
55	80.0	267.9	448,800	634,400
60	78.9	266.9	383,600	634,400
65	77.8	265.8	329,300	623,100
70	76.7	264.6	282,400	567,700
75	75.6	263.2	242,200	518,600
80	74.4	261.8	207,300	474,800
85	73.3	260.2	176,900	435,500
90	72.1	258.6	150,000	400,100
95	71.0	256.8	126,100	367,900
100	69.8	254.9	104,700	338,700
105	68.6	252.9	85,500	312,000
110	67.4	250.8	68,100	287,500
115	66.2	248.6	52,300	264,900
120	65.0	246.2	37,900	244,000
125	63.8	243.7	24,700	224,700
130	62.6	241.1		206,800
135	61.3	238.3		190,100
140	60.1	235.4		174,500
145	58.8	232.3		159,900
150	57.5	229.0		146,200
155	56.2	225.7		133,300
160	54.8	222.1		121,200
165	53.5	218.3		109,800
170	52.1	214.4		99,000
175	50.7	210.2		88,800
180	49.2	205.9		79,200
185	47.7	201.3		70,000
190	46.2	196.5		61,300

282.2 ft				
ft	°	ft	lb	lb
45	82.8	289.6	585,600	585,600
50	81.8	288.8	527,100	585,600
55	80.7	287.9	446,800	585,600
60	79.7	287.0	381,200	585,600
65	78.7	286.0	326,700	585,600
70	77.6	284.8	280,500	558,300
75	76.6	283.6	240,100	510,100
80	75.5	282.3	205,000	467,000
85	74.5	280.8	174,400	428,300
90	73.4	279.3	147,400	393,400
95	72.3	277.7	123,400	361,600
100	71.3	275.9	101,900	332,700
105	70.2	274.1	82,600	306,200
110	69.1	272.1	65,100	281,900
115	68.0	270.1	49,200	259,500
120	66.9	267.9	34,700	238,800
125	65.8	265.6	21,500	219,600
130	64.7	263.2		201,700
135	63.5	260.7		185,100
140	62.4	258.0		169,500
145	61.2	255.2		155,000
150	60.0	252.3		141,400
155	58.8	249.2		128,500
160	57.6	246.0		116,500
165	56.4	242.7		105,100
170	55.2	239.1		94,300
175	53.9	235.5		84,100
180	52.6	231.6		74,500
185	51.3	227.5		65,300
190	50.0	223.3		56,600
195	48.6	218.9		48,300
200	47.2	214.2		40,500
205	45.8	209.3		32,900

MLC650 VPC-MAX S-2

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ft	°	ft	38.7 ft lb	60.0 ft lb
50	82.3	308.7	523,700	536,800
55	81.4	307.9	443,100	536,800
60	80.4	307.0	377,200	536,800
65	79.4	306.1	322,300	536,800
70	78.5	305.0	276,000	536,800
75	77.5	303.9	236,100	500,100
80	76.5	302.6	201,000	457,700
85	75.5	301.3	170,200	419,600
90	74.5	299.9	143,100	385,100
95	73.5	298.4	119,000	353,800
100	72.5	296.8	97,400	325,100
105	71.5	295.0	78,000	298,900
110	70.5	293.2	60,500	274,800
115	69.5	291.3	44,500	252,600
120	68.5	289.3	30,000	232,000
125	67.5	287.2		212,900
130	66.4	285.0		195,200
135	65.4	282.7		178,700
140	64.3	280.2		163,200
145	63.3	277.7		148,700
150	62.2	275.0		135,100
155	61.1	272.2		122,300
160	60.0	269.3		110,300
165	58.9	266.2		98,900
170	57.8	263.0		88,200
175	56.6	259.7		78,000
180	55.5	256.2		68,400
185	54.3	252.6		59,300
190	53.1	248.8		50,600
195	51.9	244.8		42,300
200	50.6	240.7		34,400
205	49.4	236.3		26,900
210	48.1	231.8		19,700

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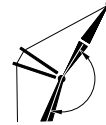
661,300 lb



360°



95.1 ft



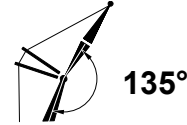
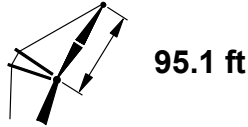
135°

<p>183.7 ft</p>				
ft	°	ft	lb	lb
32	83.0	192.0	773,600	773,600
34	82.4	191.7	773,600	773,600
36	81.7	191.4	733,300	773,600
38	81.1	191.0	673,300	773,600
40	80.5	190.6	620,300	773,600
45	78.9	189.6	510,900	773,600
50	77.3	188.4	425,500	773,600
55	75.7	187.1	355,800	773,600
60	74.0	185.6	298,800	710,500
65	72.4	183.9	251,300	643,400
70	70.7	182.1	211,200	584,900
75	69.1	180.2	176,900	533,400
80	67.4	178.0	147,100	487,800
85	65.6	175.7	121,200	447,200
90	63.9	173.2	98,300	410,700
95	62.1	170.5	77,900	377,800
100	60.3	167.5	59,800	347,900
105	58.5	164.4	43,400	320,800
110	56.6	161.1	28,700	295,900
115	54.7	157.5		273,100
120	52.7	153.6		252,100
125	50.7	149.4		232,800
130	48.6	145.0		214,800
135	46.4	140.1		198,200

<p>203.4 ft</p>				
ft	°	ft	lb	lb
36	82.5	211.3	736,800	773,600
38	82.0	211.0	676,300	773,600
40	81.4	210.7	622,700	773,600
45	80.0	209.7	512,400	773,600
50	78.5	208.6	426,800	773,600
55	77.1	207.4	357,600	773,600
60	75.6	206.1	300,200	702,300
65	74.2	204.6	252,300	636,200
70	72.7	203.0	211,900	578,500
75	71.2	201.3	177,300	527,600
80	69.7	199.4	147,300	482,500
85	68.2	197.3	121,000	442,200
90	66.6	195.1	97,900	406,000
95	65.1	192.7	77,400	373,300
100	63.5	190.1	59,000	343,700
105	61.9	187.4	42,600	316,600
110	60.2	184.5	27,600	291,900
115	58.6	181.4		269,200
120	56.9	178.1		248,200
125	55.2	174.5		228,900
130	53.4	170.8		210,900
135	51.6	166.7		194,200
140	49.7	162.4		178,700
145	47.8	157.9		164,200
150	45.9	153.0		150,600

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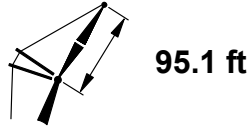


223.1 ft				
ft	°	ft	lb	lb
38	82.7	230.9	674,600	728,800
40	82.2	230.6	620,700	728,800
45	80.9	229.8	509,500	728,800
50	79.6	228.8	423,200	728,800
55	78.2	227.7	354,300	728,800
60	76.9	226.5	297,100	690,600
65	75.6	225.1	249,000	625,500
70	74.3	223.7	208,300	568,500
75	72.9	222.1	173,400	518,300
80	71.6	220.4	143,200	473,600
85	70.2	218.5	116,800	433,700
90	68.8	216.5	93,500	397,700
95	67.4	214.4	72,800	365,300
100	66.0	212.1	54,300	335,800
105	64.6	209.7	37,700	308,900
110	63.1	207.1	22,700	284,300
115	61.7	204.4		261,600
120	60.2	201.5		240,700
125	58.7	198.4		221,400
130	57.1	195.1		203,500
135	55.6	191.6		186,900
140	54.0	187.9		171,300
145	52.3	184.0		156,800
150	50.7	179.8		143,200
155	49.0	175.4		130,500
160	47.2	170.7		118,500
165	45.4	165.8		107,200

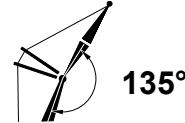
242.8 ft				
ft	°	ft	lb	lb
40	82.8	250.5	621,400	683,200
45	81.6	249.7	509,500	683,200
50	80.4	248.8	422,600	683,200
55	79.2	247.8	353,200	683,200
60	78.0	246.7	296,500	680,900
65	76.8	245.5	248,400	617,000
70	75.6	244.2	207,400	560,900
75	74.3	242.7	172,300	511,300
80	73.1	241.2	141,900	467,200
85	71.9	239.5	115,300	427,700
90	70.6	237.7	91,900	392,200
95	69.3	235.8	71,100	360,000
100	68.1	233.7	52,400	330,700
105	66.8	231.5	35,700	304,000
110	65.5	229.2	20,500	279,500
115	64.2	226.7		257,000
120	62.8	224.1		236,200
125	61.5	221.3		217,000
130	60.1	218.4		199,200
135	58.7	215.3		182,500
140	57.3	212.1		167,000
145	55.9	208.6		152,500
150	54.4	205.0		139,000
155	53.0	201.2		126,200
160	51.4	197.1		114,200
165	49.9	192.9		103,000
170	48.3	188.4		92,300
175	46.7	183.6		82,200

MLC650 VPC-MAX S-2

ASME B30.5



95.1 ft



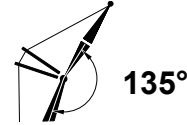
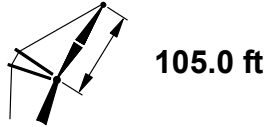
135°

262.5 ft				
ft	°	ft	lb	lb
45	82.3	269.7	604,300	634,400
50	81.1	268.8	506,300	634,400
55	80.0	267.9	428,000	634,400
60	78.9	266.9	364,000	634,400
65	77.8	265.8	310,800	608,100
70	76.7	264.6	264,800	553,100
75	75.6	263.2	225,300	504,400
80	74.4	261.8	191,100	461,000
85	73.3	260.2	161,200	422,000
90	72.1	258.6	134,900	386,900
95	71.0	256.8	111,400	355,000
100	69.8	254.9	90,500	326,000
105	68.6	252.9	71,600	299,500
110	67.4	250.8	54,600	275,300
115	66.2	248.6	39,100	252,900
120	65.0	246.2	25,000	232,200
125	63.8	243.7		213,100
130	62.6	241.1		195,300
135	61.3	238.3		178,800
140	60.1	235.4		163,400
145	58.8	232.3		148,900
150	57.5	229.0		135,400
155	56.2	225.7		122,600
160	54.8	222.1		110,700
165	53.5	218.3		99,400
170	52.1	214.4		88,700
175	50.7	210.2		78,700
180	49.2	205.9		69,100
185	47.7	201.3		60,100
190	46.2	196.5		51,500

282.2 ft				
ft	°	ft	lb	lb
45	82.8	289.6	585,600	585,600
50	81.8	288.8	504,900	585,600
55	80.7	287.9	426,200	585,600
60	79.7	287.0	361,800	585,600
65	78.7	286.0	308,300	585,600
70	77.6	284.8	263,000	544,000
75	76.6	283.6	223,300	496,200
80	75.5	282.3	189,000	453,500
85	74.5	280.8	158,900	415,100
90	73.4	279.3	132,400	380,400
95	72.3	277.7	108,900	348,900
100	71.3	275.9	87,800	320,200
105	70.2	274.1	68,900	294,000
110	69.1	272.1	51,700	269,900
115	68.0	270.1	36,200	247,600
120	66.9	267.9	22,000	227,100
125	65.8	265.6		208,100
130	64.7	263.2		190,400
135	63.5	260.7		174,000
140	62.4	258.0		158,600
145	61.2	255.2		144,200
150	60.0	252.3		130,700
155	58.8	249.2		118,000
160	57.6	246.0		106,000
165	56.4	242.7		94,800
170	55.2	239.1		84,100
175	53.9	235.5		74,100
180	52.6	231.6		64,500
185	51.3	227.5		55,500
190	50.0	223.3		46,900
195	48.6	218.9		38,700
200	47.2	214.2		30,900
205	45.8	209.3		23,500

MLC650 VPC-MAX S-2

ASME B30.5

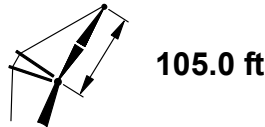


183.7 ft				
ft	°	ft	lb	lb
32	83.0	192.0	773,600	773,600
34	82.4	191.7	773,600	773,600
36	81.7	191.4	707,000	773,600
38	81.1	191.0	648,200	773,600
40	80.5	190.6	596,200	773,600
45	78.9	189.6	489,100	773,600
50	77.3	188.4	405,500	773,600
55	75.7	187.1	337,200	773,200
60	74.0	185.6	281,300	696,100
65	72.4	183.9	234,900	629,500
70	70.7	182.1	195,600	571,500
75	69.1	180.2	162,000	520,500
80	67.4	178.0	132,900	475,300
85	65.6	175.7	107,500	435,100
90	63.9	173.2	85,100	398,900
95	62.1	170.5	65,200	366,300
100	60.3	167.5	47,500	336,800
105	58.5	164.4	31,500	309,900
110	56.6	161.1	17,100	285,300
115	54.7	157.5		262,800
120	52.7	153.6		242,000
125	50.7	149.4		222,900
130	48.6	145.0		205,100
135	46.4	140.1		188,700

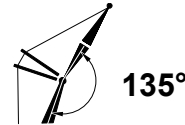
203.4 ft				
ft	°	ft	lb	lb
36	82.5	211.3	710,700	773,600
38	82.0	211.0	651,400	773,600
40	81.4	210.7	598,900	773,600
45	80.0	209.7	490,900	773,600
50	78.5	208.6	407,000	773,600
55	77.1	207.4	339,300	764,000
60	75.6	206.1	283,000	688,200
65	74.2	204.6	236,100	622,700
70	72.7	203.0	196,500	565,400
75	71.2	201.3	162,600	515,000
80	69.7	199.4	133,200	470,300
85	68.2	197.3	107,600	430,400
90	66.6	195.1	84,900	394,500
95	65.1	192.7	64,900	362,100
100	63.5	190.1	46,900	332,700
105	61.9	187.4	30,800	306,000
110	60.2	184.5		281,500
115	58.6	181.4		259,000
120	56.9	178.1		238,200
125	55.2	174.5		219,100
130	53.4	170.8		201,400
135	51.6	166.7		184,900
140	49.7	162.4		169,500
145	47.8	157.9		155,200
150	45.9	153.0		141,800

MLC650 VPC-MAX S-2

ASME B30.5



105.0 ft



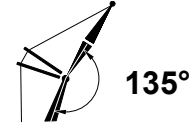
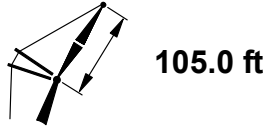
135°

223.1 ft				
ft	°	ft	lb	lb
38	82.7	230.9	650,000	728,800
40	82.2	230.6	597,100	728,800
45	80.9	229.8	488,200	728,800
50	79.6	228.8	403,600	728,800
55	78.2	227.7	336,100	728,800
60	76.9	226.5	280,100	676,900
65	75.6	225.1	233,000	612,300
70	74.3	223.7	193,100	555,700
75	72.9	222.1	158,900	505,900
80	71.6	220.4	129,300	461,600
85	70.2	218.5	103,500	422,000
90	68.8	216.5	80,700	386,400
95	67.4	214.4	60,400	354,300
100	66.0	212.1	42,300	325,000
105	64.6	209.7	26,100	298,400
110	63.1	207.1		274,000
115	61.7	204.4		251,600
120	60.2	201.5		230,900
125	58.7	198.4		211,800
130	57.1	195.1		194,100
135	55.6	191.6		177,600
140	54.0	187.9		162,200
145	52.3	184.0		147,900
150	50.7	179.8		134,500
155	49.0	175.4		121,900
160	47.2	170.7		110,000
165	45.4	165.8		98,900

242.8 ft				
ft	°	ft	lb	lb
40	82.8	250.5	598,000	683,200
45	81.6	249.7	488,300	683,200
50	80.4	248.8	403,200	683,200
55	79.2	247.8	335,200	683,200
60	78.0	246.7	279,700	667,500
65	76.8	245.5	232,500	604,100
70	75.6	244.2	192,400	548,400
75	74.3	242.7	158,000	499,300
80	73.1	241.2	128,200	455,500
85	71.9	239.5	102,200	416,300
90	70.6	237.7	79,200	381,100
95	69.3	235.8	58,800	349,200
100	68.1	233.7	40,600	320,200
105	66.8	231.5	24,200	293,700
110	65.5	229.2		269,500
115	64.2	226.7		247,100
120	62.8	224.1		226,600
125	61.5	221.3		207,500
130	60.1	218.4		189,800
135	58.7	215.3		173,400
140	57.3	212.1		158,100
145	55.9	208.6		143,700
150	54.4	205.0		130,300
155	53.0	201.2		117,700
160	51.4	197.1		105,900
165	49.9	192.9		94,700
170	48.3	188.4		84,200
175	46.7	183.6		74,200

MLC650 VPC-MAX S-2

ASME B30.5

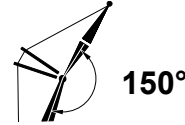
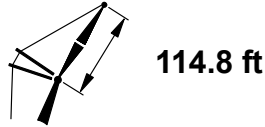


262.5 ft				
ft	°	ft	lb	lb
45	82.3	269.7	583,300	634,400
50	81.1	268.8	487,000	634,400
55	80.0	267.9	410,100	634,400
60	78.9	266.9	347,300	634,400
65	77.8	265.8	295,000	595,500
70	76.7	264.6	249,900	540,900
75	75.6	263.2	211,100	492,600
80	74.4	261.8	177,600	449,500
85	73.3	260.2	148,200	410,800
90	72.1	258.6	122,300	376,000
95	71.0	256.8	99,300	344,400
100	69.8	254.9	78,800	315,700
105	68.6	252.9	60,300	289,400
110	67.4	250.8	43,600	265,300
115	66.2	248.6	28,400	243,200
120	65.0	246.2		222,700
125	63.8	243.7		203,800
130	62.6	241.1		186,200
135	61.3	238.3		169,800
140	60.1	235.4		154,500
145	58.8	232.3		140,200
150	57.5	229.0		126,800
155	56.2	225.7		114,200
160	54.8	222.1		102,400
165	53.5	218.3		91,200
170	52.1	214.4		80,700
175	50.7	210.2		70,700
180	49.2	205.9		61,300
185	47.7	201.3		52,400
190	46.2	196.5		43,900

282.2 ft				
ft	°	ft	lb	lb
45	82.8	289.6	582,600	585,600
50	81.8	288.8	485,800	585,600
55	80.7	287.9	408,500	585,600
60	79.7	287.0	345,300	585,600
65	78.7	286.0	292,700	585,600
70	77.6	284.8	248,200	532,200
75	76.6	283.6	209,300	484,700
80	75.5	282.3	175,500	442,300
85	74.5	280.8	146,000	404,100
90	73.4	279.3	120,000	369,700
95	72.3	277.7	96,900	338,500
100	71.3	275.9	76,200	310,000
105	70.2	274.1	57,600	284,000
110	69.1	272.1	40,800	260,100
115	68.0	270.1	25,500	238,100
120	66.9	267.9		217,700
125	65.8	265.6		198,900
130	64.7	263.2		181,400
135	63.5	260.7		165,100
140	62.4	258.0		149,800
145	61.2	255.2		135,600
150	60.0	252.3		122,200
155	58.8	249.2		109,600
160	57.6	246.0		97,800
165	56.4	242.7		86,700
170	55.2	239.1		76,100
175	53.9	235.5		66,200
180	52.6	231.6		56,700
185	51.3	227.5		47,800
190	50.0	223.3		39,300
195	48.6	218.9		31,200
200	47.2	214.2		23,500

MLC650 VPC-MAX S-2

ASME B30.5

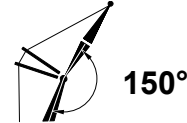
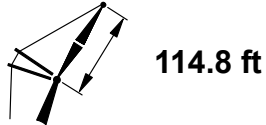


183.7 ft				
ft	°	ft	lb	lb
32	83.0	192.0	773,600	773,600
34	82.4	191.7	773,600	773,600
36	81.7	191.4	736,900	773,600
38	81.1	191.0	675,300	773,600
40	80.5	190.6	620,700	773,600
45	78.9	189.6	508,400	773,600
50	77.3	188.4	420,600	773,600
55	75.7	187.1	349,000	773,600
60	74.0	185.6	290,500	703,100
65	72.4	183.9	241,700	634,700
70	70.7	182.1	200,500	575,200
75	69.1	180.2	165,200	522,800
80	67.4	178.0	134,600	476,400
85	65.6	175.7	107,900	435,000
90	63.9	173.2	84,300	397,800
95	62.1	170.5	63,400	364,300
100	60.3	167.5	44,600	333,900
105	58.5	164.4	27,800	306,200
110	56.6	161.1		280,900
115	54.7	157.5		257,600
120	52.7	153.6		236,200
125	50.7	149.4		216,400
130	48.6	145.0		198,100
135	46.4	140.1		181,100
140	44.2	134.9		165,200
145	41.8	129.3		150,400
150	39.4	123.1		136,600
155	36.8	116.4		123,600
160	34.0	109.0		111,500
165	30.9	100.7		100,100

203.4 ft				
ft	°	ft	lb	lb
36	82.5	211.3	741,700	773,600
38	82.0	211.0	679,600	773,600
40	81.4	210.7	624,600	773,600
45	80.0	209.7	511,300	773,600
50	78.5	208.6	423,400	773,600
55	77.1	207.4	352,400	773,600
60	75.6	206.1	293,400	696,100
65	74.2	204.6	244,300	628,900
70	72.7	203.0	202,700	570,100
75	71.2	201.3	167,100	518,400
80	69.7	199.4	136,300	472,500
85	68.2	197.3	109,300	431,500
90	66.6	195.1	85,600	394,700
95	65.1	192.7	64,500	361,400
100	63.5	190.1	45,600	331,200
105	61.9	187.4	28,600	303,600
110	60.2	184.5		278,400
115	58.6	181.4		255,300
120	56.9	178.1		233,900
125	55.2	174.5		214,200
130	53.4	170.8		195,900
135	51.6	166.7		178,900
140	49.7	162.4		163,000
145	47.8	157.9		148,200
150	45.9	153.0		134,400
155	43.8	147.7		121,400
160	41.7	142.0		109,100
165	39.5	135.9		97,600
170	37.1	129.3		86,800
175	34.6	122.0		76,600
180	32.0	114.0		66,900

MLC650 VPC-MAX S-2

ASME B30.5

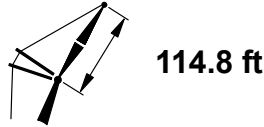


223.1 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
38	82.7	230.9	679,000	728,800
40	82.2	230.6	623,600	728,800
45	80.9	229.8	509,600	728,800
50	79.6	228.8	421,000	728,800
55	78.2	227.7	350,200	728,800
60	76.9	226.5	291,600	685,600
65	75.6	225.1	242,100	619,300
70	74.3	223.7	200,300	561,300
75	72.9	222.1	164,500	510,200
80	71.6	220.4	133,500	464,800
85	70.2	218.5	106,400	424,100
90	68.8	216.5	82,400	387,600
95	67.4	214.4	61,200	354,600
100	66.0	212.1	42,200	324,500
105	64.6	209.7	25,100	297,200
110	63.1	207.1		272,100
115	61.7	204.4		249,000
120	60.2	201.5		227,800
125	58.7	198.4		208,100
130	57.1	195.1		189,900
135	55.6	191.6		172,900
140	54.0	187.9		157,100
145	52.3	184.0		142,300
150	50.7	179.8		128,400
155	49.0	175.4		115,400
160	47.2	170.7		103,200
165	45.4	165.8		91,600
170	43.5	160.5		80,800
175	41.6	154.8		70,500
180	39.5	148.7		60,800
185	37.4	142.1		51,600
190	35.2	135.0		42,800
195	32.8	127.2		34,500
200	30.3	118.7		26,700

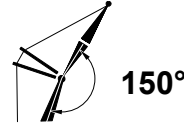
242.8 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
40	82.8	250.5	625,300	683,200
45	81.6	249.7	510,500	683,200
50	80.4	248.8	421,300	683,200
55	79.2	247.8	350,100	683,200
60	78.0	246.7	291,900	676,800
65	76.8	245.5	242,500	611,700
70	75.6	244.2	200,500	554,700
75	74.3	242.7	164,500	504,300
80	73.1	241.2	133,300	459,400
85	71.9	239.5	106,000	419,200
90	70.6	237.7	81,900	383,000
95	69.3	235.8	60,500	350,300
100	68.1	233.7	41,400	320,500
105	66.8	231.5	24,200	293,400
110	65.5	229.2		268,500
115	64.2	226.7		245,500
120	62.8	224.1		224,400
125	61.5	221.3		204,800
130	60.1	218.4		186,600
135	58.7	215.3		169,700
140	57.3	212.1		153,900
145	55.9	208.6		139,200
150	54.4	205.0		125,300
155	53.0	201.2		112,300
160	51.4	197.1		100,100
165	49.9	192.9		88,600
170	48.3	188.4		77,700
175	46.7	183.6		67,400
180	45.0	178.6		57,700
185	43.3	173.2		48,500
190	41.5	167.5		39,700
195	39.6	161.4		31,400
200	37.7	154.9		23,400

MLC650 VPC-MAX S-2

ASME B30.5



114.8 ft



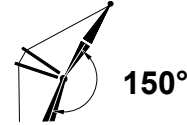
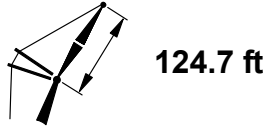
150°

262.5 ft				
ft	°	ft	lb	lb
45	82.3	269.7	606,100	634,400
50	81.1	268.8	505,800	634,400
55	80.0	267.9	425,700	634,400
60	78.9	266.9	360,200	634,400
65	77.8	265.8	305,800	603,600
70	76.7	264.6	258,700	547,700
75	75.6	263.2	218,400	498,100
80	74.4	261.8	183,400	454,000
85	73.3	260.2	152,800	414,300
90	72.1	258.6	125,800	378,600
95	71.0	256.8	101,800	346,200
100	69.8	254.9	80,400	316,700
105	68.6	252.9	61,100	289,800
110	67.4	250.8	43,600	265,100
115	66.2	248.6	27,800	242,300
120	65.0	246.2		221,300
125	63.8	243.7		201,800
130	62.6	241.1		183,800
135	61.3	238.3		166,900
140	60.1	235.4		151,200
145	58.8	232.3		136,500
150	57.5	229.0		122,700
155	56.2	225.7		109,800
160	54.8	222.1		97,600
165	53.5	218.3		86,100
170	52.1	214.4		75,200
175	50.7	210.2		64,900
180	49.2	205.9		55,200
185	47.7	201.3		46,000
190	46.2	196.5		37,200
195	44.7	191.4		28,900
200	43.0	186.0		20,900

282.2 ft				
ft	°	ft	lb	lb
45	82.8	289.6	585,600	585,600
50	81.8	288.8	505,100	585,600
55	80.7	287.9	424,600	585,600
60	79.7	287.0	358,800	585,600
65	78.7	286.0	304,000	585,600
70	77.6	284.8	257,700	539,300
75	76.6	283.6	217,100	490,700
80	75.5	282.3	182,000	447,200
85	74.5	280.8	151,200	408,100
90	73.4	279.3	124,100	372,900
95	72.3	277.7	100,000	340,800
100	71.3	275.9	78,500	311,700
105	70.2	274.1	59,100	285,000
110	69.1	272.1	41,600	260,500
115	68.0	270.1	25,600	237,900
120	66.9	267.9		217,000
125	65.8	265.6		197,600
130	64.7	263.2		179,700
135	63.5	260.7		162,900
140	62.4	258.0		147,200
145	61.2	255.2		132,600
150	60.0	252.3		118,800
155	58.8	249.2		105,900
160	57.6	246.0		93,800
165	56.4	242.7		82,300
170	55.2	239.1		71,500
175	53.9	235.5		61,200
180	52.6	231.6		51,500
185	51.3	227.5		42,200
190	50.0	223.3		33,500
195	48.6	218.9		25,100
200	47.2	214.2		17,200

MLC650 VPC-MAX S-2

ASME B30.5

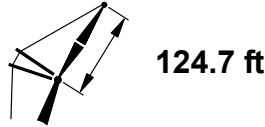


183.7 ft				
ft	°	ft	lb	lb
32	83.0	192.0	773,600	773,600
34	82.4	191.7	773,600	773,600
36	81.7	191.4	773,600	773,600
38	81.1	191.0	773,400	773,600
40	80.5	190.6	713,000	773,600
45	78.9	189.6	588,600	773,600
50	77.3	188.4	491,400	773,600
55	75.7	187.1	412,300	772,900
60	74.0	185.6	347,600	694,100
65	72.4	183.9	293,700	626,100
70	70.7	182.1	248,200	566,800
75	69.1	180.2	209,100	514,700
80	67.4	178.0	175,400	468,600
85	65.6	175.7	145,800	427,400
90	63.9	173.2	119,800	390,400
95	62.1	170.5	96,700	357,100
100	60.3	167.5	76,000	326,900
105	58.5	164.4	57,400	299,300
110	56.6	161.1	40,600	274,200
115	54.7	157.5	25,400	251,100
120	52.7	153.6		229,800
125	50.7	149.4		210,100
130	48.6	145.0		191,900
135	46.4	140.1		175,000
140	44.2	134.9		159,300
145	41.8	129.3		144,600
150	39.4	123.1		130,900
155	36.8	116.4		118,100
160	34.0	109.0		106,100
165	30.9	100.7		94,800

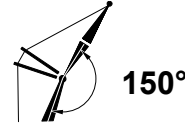
203.4 ft				
ft	°	ft	lb	lb
36	82.5	211.3	773,600	773,600
38	82.0	211.0	773,600	773,600
40	81.4	210.7	717,500	773,600
45	80.0	209.7	592,100	773,600
50	78.5	208.6	494,700	773,600
55	77.1	207.4	416,100	765,000
60	75.6	206.1	351,000	687,600
65	74.2	204.6	296,700	620,700
70	72.7	203.0	250,800	562,200
75	71.2	201.3	211,500	510,700
80	69.7	199.4	177,500	465,000
85	68.2	197.3	147,700	424,200
90	66.6	195.1	121,500	387,600
95	65.1	192.7	98,100	354,500
100	63.5	190.1	77,300	324,400
105	61.9	187.4	58,600	297,100
110	60.2	184.5	41,600	272,000
115	58.6	181.4	26,200	249,000
120	56.9	178.1		227,800
125	55.2	174.5		208,200
130	53.4	170.8		190,000
135	51.6	166.7		173,100
140	49.7	162.4		157,300
145	47.8	157.9		142,600
150	45.9	153.0		128,900
155	43.8	147.7		116,000
160	41.7	142.0		103,800
165	39.5	135.9		92,400
170	37.1	129.3		81,700
175	34.6	122.0		71,600
180	32.0	114.0		62,000

MLC650 VPC-MAX S-2

ASME B30.5



124.7 ft



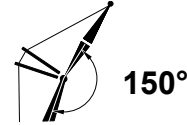
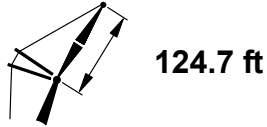
150°

223.1 ft				
ft	°	ft	lb	lb
38	82.7	230.9	728,800	728,800
40	82.2	230.6	717,100	728,800
45	80.9	229.8	590,800	728,800
50	79.6	228.8	492,800	728,800
55	78.2	227.7	414,400	728,800
60	76.9	226.5	349,600	677,300
65	75.6	225.1	295,000	611,400
70	74.3	223.7	248,800	553,600
75	72.9	222.1	209,300	502,700
80	71.6	220.4	175,000	457,500
85	70.2	218.5	145,100	417,100
90	68.8	216.5	118,700	380,700
95	67.4	214.4	95,200	347,900
100	66.0	212.1	74,200	318,000
105	64.6	209.7	55,400	290,800
110	63.1	207.1	38,300	265,900
115	61.7	204.4	22,800	242,900
120	60.2	201.5		221,800
125	58.7	198.4		202,300
130	57.1	195.1		184,100
135	55.6	191.6		167,300
140	54.0	187.9		151,500
145	52.3	184.0		136,800
150	50.7	179.8		123,100
155	49.0	175.4		110,100
160	47.2	170.7		98,000
165	45.4	165.8		86,600
170	43.5	160.5		75,800
175	41.6	154.8		65,600
180	39.5	148.7		55,900
185	37.4	142.1		46,800
190	35.2	135.0		38,200
195	32.8	127.2		30,000
200	30.3	118.7		22,200

242.8 ft				
ft	°	ft	lb	lb
40	82.8	250.5	683,200	683,200
45	81.6	249.7	592,200	683,200
50	80.4	248.8	493,500	683,200
55	79.2	247.8	414,700	683,200
60	78.0	246.7	350,300	668,900
65	76.8	245.5	295,700	604,100
70	75.6	244.2	249,300	547,300
75	74.3	242.7	209,600	497,100
80	73.1	241.2	175,100	452,400
85	71.9	239.5	145,000	412,400
90	70.6	237.7	118,400	376,400
95	69.3	235.8	94,800	343,800
100	68.1	233.7	73,700	314,200
105	66.8	231.5	54,700	287,200
110	65.5	229.2	37,600	262,400
115	64.2	226.7	22,000	239,600
120	62.8	224.1		218,600
125	61.5	221.3		199,100
130	60.1	218.4		181,100
135	58.7	215.3		164,300
140	57.3	212.1		148,600
145	55.9	208.6		133,900
150	54.4	205.0		120,100
155	53.0	201.2		107,200
160	51.4	197.1		95,100
165	49.9	192.9		83,700
170	48.3	188.4		72,900
175	46.7	183.6		62,600
180	45.0	178.6		53,000
185	43.3	173.2		43,800
190	41.5	167.5		35,100
195	39.6	161.4		26,900
200	37.7	154.9		19,000

MLC650 VPC-MAX S-2

ASME B30.5

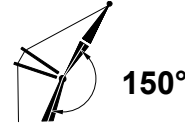
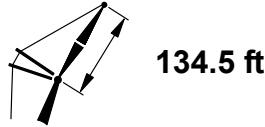


262.5 ft				
ft	°	ft	lb	lb
45	82.3	269.7	593,300	634,400
50	81.1	268.8	494,100	634,400
55	80.0	267.9	414,900	634,400
60	78.9	266.9	350,200	634,400
65	77.8	265.8	296,300	596,200
70	76.7	264.6	249,800	540,500
75	75.6	263.2	209,800	491,200
80	74.4	261.8	175,200	447,200
85	73.3	260.2	145,000	407,700
90	72.1	258.6	118,300	372,200
95	71.0	256.8	94,600	339,900
100	69.8	254.9	73,300	310,600
105	68.6	252.9	54,300	283,800
110	67.4	250.8	37,000	259,200
115	66.2	248.6	21,300	236,600
120	65.0	246.2		215,700
125	63.8	243.7		196,300
130	62.6	241.1		178,400
135	61.3	238.3		161,600
140	60.1	235.4		146,000
145	58.8	232.3		131,400
150	57.5	229.0		117,700
155	56.2	225.7		104,800
160	54.8	222.1		92,700
165	53.5	218.3		81,300
170	52.1	214.4		70,500
175	50.7	210.2		60,300
180	49.2	205.9		50,600
185	47.7	201.3		41,400
190	46.2	196.5		32,700
195	44.7	191.4		24,500

282.2 ft				
ft	°	ft	lb	lb
45	82.8	289.6	585,600	585,600
50	81.8	288.8	493,600	585,600
55	80.7	287.9	414,000	585,600
60	79.7	287.0	348,900	585,600
65	78.7	286.0	294,700	585,600
70	77.6	284.8	248,800	532,400
75	76.6	283.6	208,700	483,900
80	75.5	282.3	174,000	440,600
85	74.5	280.8	143,600	401,700
90	73.4	279.3	116,700	366,600
95	72.3	277.7	92,900	334,800
100	71.3	275.9	71,600	305,700
105	70.2	274.1	52,400	279,200
110	69.1	272.1	35,100	254,800
115	68.0	270.1	19,300	232,300
120	66.9	267.9		211,500
125	65.8	265.6		192,300
130	64.7	263.2		174,400
135	63.5	260.7		157,700
140	62.4	258.0		142,200
145	61.2	255.2		127,600
150	60.0	252.3		113,900
155	58.8	249.2		101,100
160	57.6	246.0		89,000
165	56.4	242.7		77,600
170	55.2	239.1		66,800
175	53.9	235.5		56,600
180	52.6	231.6		47,000
185	51.3	227.5		37,800
190	50.0	223.3		29,100
195	48.6	218.9		20,800

MLC650 VPC-MAX S-2

ASME B30.5



183.7 ft

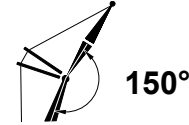
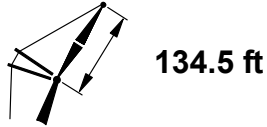
ft	°	ft	lb	
			38.7 ft	60.0 ft
32	83.0	192.0	773,600	773,600
34	82.4	191.7	773,600	773,600
36	81.7	191.4	773,600	773,600
38	81.1	191.0	747,600	773,600
40	80.5	190.6	688,100	773,600
45	78.9	189.6	565,500	773,600
50	77.3	188.4	469,800	773,600
55	75.7	187.1	391,900	756,000
60	74.0	185.6	328,200	677,800
65	72.4	183.9	275,100	610,200
70	70.7	182.1	230,300	551,300
75	69.1	180.2	191,900	499,600
80	67.4	178.0	158,600	453,700
85	65.6	175.7	129,600	412,800
90	63.9	173.2	104,000	376,200
95	62.1	170.5	81,200	343,100
100	60.3	167.5	60,900	313,100
105	58.5	164.4	42,700	285,800
110	56.6	161.1	26,200	260,800
115	54.7	157.5		237,900
120	52.7	153.6		216,800
125	50.7	149.4		197,300
130	48.6	145.0		179,300
135	46.4	140.1		162,500
140	44.2	134.9		147,000
145	41.8	129.3		132,500
150	39.4	123.1		118,900
155	36.8	116.4		106,200
160	34.0	109.0		94,400
165	30.9	100.7		83,300

203.4 ft

ft	°	ft	lb	
			38.7 ft	60.0 ft
36	82.5	211.3	773,600	773,600
38	82.0	211.0	753,000	773,600
40	81.4	210.7	693,000	773,600
45	80.0	209.7	569,400	773,600
50	78.5	208.6	473,500	773,600
55	77.1	207.4	396,200	748,700
60	75.6	206.1	332,000	671,800
65	74.2	204.6	278,500	605,200
70	72.7	203.0	233,400	547,200
75	71.2	201.3	194,700	496,000
80	69.7	199.4	161,100	450,600
85	68.2	197.3	131,800	410,100
90	66.6	195.1	106,000	373,700
95	65.1	192.7	83,100	340,900
100	63.5	190.1	62,600	311,000
105	61.9	187.4	44,100	283,900
110	60.2	184.5	27,500	259,000
115	58.6	181.4		236,200
120	56.9	178.1		215,100
125	55.2	174.5		195,700
130	53.4	170.8		177,600
135	51.6	166.7		160,900
140	49.7	162.4		145,300
145	47.8	157.9		130,700
150	45.9	153.0		117,100
155	43.8	147.7		104,300
160	41.7	142.0		92,300
165	39.5	135.9		81,100
170	37.1	129.3		70,500
175	34.6	122.0		60,500
180	32.0	114.0		51,100

MLC650 VPC-MAX S-2

ASME B30.5

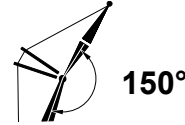
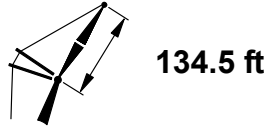


223.1 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
38	82.7	230.9	728,800	728,800
40	82.2	230.6	692,900	728,800
45	80.9	229.8	568,500	728,800
50	79.6	228.8	472,000	728,800
55	78.2	227.7	394,800	728,800
60	76.9	226.5	330,900	662,000
65	75.6	225.1	277,200	596,400
70	74.3	223.7	231,700	539,000
75	72.9	222.1	192,800	488,400
80	71.6	220.4	159,000	443,500
85	70.2	218.5	129,600	403,400
90	68.8	216.5	103,600	367,200
95	67.4	214.4	80,500	334,600
100	66.0	212.1	59,800	305,000
105	64.6	209.7	41,200	277,900
110	63.1	207.1	24,500	253,200
115	61.7	204.4		230,400
120	60.2	201.5		209,500
125	58.7	198.4		190,100
130	57.1	195.1		172,100
135	55.6	191.6		155,400
140	54.0	187.9		139,800
145	52.3	184.0		125,200
150	50.7	179.8		111,500
155	49.0	175.4		98,700
160	47.2	170.7		86,700
165	45.4	165.8		75,400
170	43.5	160.5		64,700
175	41.6	154.8		54,600
180	39.5	148.7		45,100
185	37.4	142.1		36,100
190	35.2	135.0		27,600
195	32.8	127.2		19,500

242.8 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
40	82.8	250.5	683,200	683,200
45	81.6	249.7	570,200	683,200
50	80.4	248.8	473,000	683,200
55	79.2	247.8	395,400	683,200
60	78.0	246.7	331,900	653,900
65	76.8	245.5	278,200	589,500
70	75.6	244.2	232,500	533,000
75	74.3	242.7	193,300	483,100
80	73.1	241.2	159,400	438,800
85	71.9	239.5	129,800	399,000
90	70.6	237.7	103,600	363,300
95	69.3	235.8	80,400	330,900
100	68.1	233.7	59,600	301,500
105	66.8	231.5	40,900	274,700
110	65.5	229.2	24,000	250,000
115	64.2	226.7		227,400
120	62.8	224.1		206,500
125	61.5	221.3		187,200
130	60.1	218.4		169,300
135	58.7	215.3		152,600
140	57.3	212.1		137,000
145	55.9	208.6		122,500
150	54.4	205.0		108,900
155	53.0	201.2		96,100
160	51.4	197.1		84,000
165	49.9	192.9		72,700
170	48.3	188.4		62,000
175	46.7	183.6		51,900
180	45.0	178.6		42,300
185	43.3	173.2		33,300
190	41.5	167.5		24,700

MLC650 VPC-MAX S-2

ASME B30.5

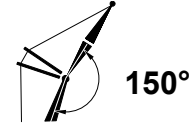
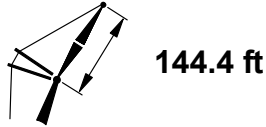


262.5 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.3	269.7	571,600	634,400
50	81.1	268.8	473,900	634,400
55	80.0	267.9	395,800	634,400
60	78.9	266.9	332,100	634,400
65	77.8	265.8	279,000	582,100
70	76.7	264.6	233,200	526,700
75	75.6	263.2	193,800	477,600
80	74.4	261.8	159,800	433,900
85	73.3	260.2	130,000	394,700
90	72.1	258.6	103,700	359,300
95	71.0	256.8	80,300	327,300
100	69.8	254.9	59,400	298,200
105	68.6	252.9	40,700	271,500
110	67.4	250.8	23,700	247,100
115	66.2	248.6		224,700
120	65.0	246.2		203,900
125	63.8	243.7		184,700
130	62.6	241.1		166,800
135	61.3	238.3		150,200
140	60.1	235.4		134,700
145	58.8	232.3		120,200
150	57.5	229.0		106,600
155	56.2	225.7		93,800
160	54.8	222.1		81,800
165	53.5	218.3		70,500
170	52.1	214.4		59,800
175	50.7	210.2		49,700
180	49.2	205.9		40,100
185	47.7	201.3		31,000
190	46.2	196.5		22,400

282.2 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.8	289.6	571,800	585,600
50	81.8	288.8	473,600	585,600
55	80.7	287.9	395,100	585,600
60	79.7	287.0	331,000	585,600
65	78.7	286.0	277,600	573,300
70	77.6	284.8	232,500	518,900
75	76.6	283.6	192,900	470,700
80	75.5	282.3	158,700	427,700
85	74.5	280.8	128,800	389,000
90	73.4	279.3	102,300	354,100
95	72.3	277.7	78,900	322,400
100	71.3	275.9	57,900	293,600
105	70.2	274.1	39,000	267,200
110	69.1	272.1	21,900	242,900
115	68.0	270.1		220,600
120	66.9	267.9		200,000
125	65.8	265.6		180,900
130	64.7	263.2		163,100
135	63.5	260.7		146,600
140	62.4	258.0		131,100
145	61.2	255.2		116,600
150	60.0	252.3		103,100
155	58.8	249.2		90,300
160	57.6	246.0		78,300
165	56.4	242.7		67,000
170	55.2	239.1		56,300
175	53.9	235.5		46,200
180	52.6	231.6		36,700
185	51.3	227.5		27,600
190	50.0	223.3		19,000

MLC650 VPC-MAX S-2

ASME B30.5

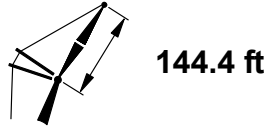


183.7 ft				
ft	°	ft	lb	lb
32	83.0	192.0	773,600	773,600
34	82.4	191.7	773,600	773,600
36	81.7	191.4	773,600	773,600
38	81.1	191.0	723,800	773,600
40	80.5	190.6	665,200	773,600
45	78.9	189.6	544,500	773,600
50	77.3	188.4	450,300	773,600
55	75.7	187.1	373,600	741,100
60	74.0	185.6	310,800	663,300
65	72.4	183.9	258,600	596,200
70	70.7	182.1	214,500	537,700
75	69.1	180.2	176,700	486,300
80	67.4	178.0	144,000	440,800
85	65.6	175.7	115,400	400,200
90	63.9	173.2	90,200	363,800
95	62.1	170.5	67,800	331,000
100	60.3	167.5	47,900	301,200
105	58.5	164.4	29,900	274,100
110	56.6	161.1		249,400
115	54.7	157.5		226,700
120	52.7	153.6		205,800
125	50.7	149.4		186,500
130	48.6	145.0		168,600
135	46.4	140.1		152,000
140	44.2	134.9		136,600
145	41.8	129.3		122,300
150	39.4	123.1		108,900
155	36.8	116.4		96,400
160	34.0	109.0		84,700
165	30.9	100.7		73,800

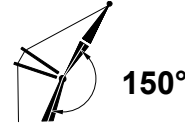
203.4 ft				
ft	°	ft	lb	lb
36	82.5	211.3	773,600	773,600
38	82.0	211.0	729,600	773,600
40	81.4	210.7	670,500	773,600
45	80.0	209.7	548,900	773,600
50	78.5	208.6	454,400	773,600
55	77.1	207.4	378,200	734,300
60	75.6	206.1	315,000	657,800
65	74.2	204.6	262,400	591,700
70	72.7	203.0	217,900	534,000
75	71.2	201.3	179,800	483,200
80	69.7	199.4	146,800	438,100
85	68.2	197.3	118,000	397,900
90	66.6	195.1	92,600	361,800
95	65.1	192.7	70,000	329,200
100	63.5	190.1	49,900	299,600
105	61.9	187.4	31,800	272,600
110	60.2	184.5		247,900
115	58.6	181.4		225,300
120	56.9	178.1		204,400
125	55.2	174.5		185,100
130	53.4	170.8		167,300
135	51.6	166.7		150,700
140	49.7	162.4		135,200
145	47.8	157.9		120,800
150	45.9	153.0		107,300
155	43.8	147.7		94,700
160	41.7	142.0		82,800
165	39.5	135.9		71,700
170	37.1	129.3		61,200
175	34.6	122.0		51,300
180	32.0	114.0		42,100

MLC650 VPC-MAX S-2

ASME B30.5



144.4 ft



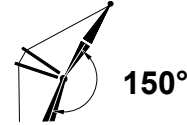
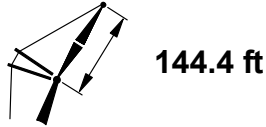
150°

223.1 ft				
ft	°	ft	lb	lb
38	82.7	230.9	728,800	728,800
40	82.2	230.6	670,800	728,800
45	80.9	229.8	548,300	728,800
50	79.6	228.8	453,200	728,800
55	78.2	227.7	377,200	723,700
60	76.9	226.5	314,300	648,500
65	75.6	225.1	261,400	583,300
70	74.3	223.7	216,600	526,300
75	72.9	222.1	178,300	476,000
80	71.6	220.4	145,100	431,400
85	70.2	218.5	116,000	391,500
90	68.8	216.5	90,500	355,700
95	67.4	214.4	67,700	323,300
100	66.0	212.1	47,400	293,800
105	64.6	209.7	29,200	267,000
110	63.1	207.1		242,400
115	61.7	204.4		219,900
120	60.2	201.5		199,100
125	58.7	198.4		179,800
130	57.1	195.1		162,000
135	55.6	191.6		145,400
140	54.0	187.9		129,900
145	52.3	184.0		115,500
150	50.7	179.8		102,000
155	49.0	175.4		89,300
160	47.2	170.7		77,400
165	45.4	165.8		66,200
170	43.5	160.5		55,600
175	41.6	154.8		45,700
180	39.5	148.7		36,200
185	37.4	142.1		27,300
190	35.2	135.0		18,900

242.8 ft				
ft	°	ft	lb	lb
40	82.8	250.5	673,500	683,200
45	81.6	249.7	550,200	683,200
50	80.4	248.8	454,500	683,200
55	79.2	247.8	378,100	683,200
60	78.0	246.7	315,600	640,800
65	76.8	245.5	262,700	576,800
70	75.6	244.2	217,700	520,700
75	74.3	242.7	179,100	471,100
80	73.1	241.2	145,700	427,000
85	71.9	239.5	116,500	387,500
90	70.6	237.7	90,800	352,000
95	69.3	235.8	67,900	319,900
100	68.1	233.7	47,500	290,700
105	66.8	231.5	29,100	264,000
110	65.5	229.2		239,600
115	64.2	226.7		217,100
120	62.8	224.1		196,400
125	61.5	221.3		177,200
130	60.1	218.4		159,400
135	58.7	215.3		142,900
140	57.3	212.1		127,500
145	55.9	208.6		113,000
150	54.4	205.0		99,500
155	53.0	201.2		86,800
160	51.4	197.1		74,900
165	49.9	192.9		63,700
170	48.3	188.4		53,100
175	46.7	183.6		43,100
180	45.0	178.6		33,600
185	43.3	173.2		24,600

MLC650 VPC-MAX S-2

ASME B30.5

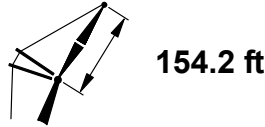


262.5 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.3	269.7	551,900	634,400
50	81.1	268.8	455,600	634,400
55	80.0	267.9	378,800	634,400
60	78.9	266.9	316,000	632,500
65	77.8	265.8	263,700	569,800
70	76.7	264.6	218,600	514,700
75	75.6	263.2	179,800	465,900
80	74.4	261.8	146,300	422,400
85	73.3	260.2	116,900	383,500
90	72.1	258.6	91,100	348,400
95	71.0	256.8	68,100	316,500
100	69.8	254.9	47,500	287,600
105	68.6	252.9	29,000	261,200
110	67.4	250.8		236,900
115	66.2	248.6		214,600
120	65.0	246.2		194,000
125	63.8	243.7		174,900
130	62.6	241.1		157,200
135	61.3	238.3		140,700
140	60.1	235.4		125,300
145	58.8	232.3		111,000
150	57.5	229.0		97,500
155	56.2	225.7		84,800
160	54.8	222.1		72,900
165	53.5	218.3		61,700
170	52.1	214.4		51,100
175	50.7	210.2		41,000
180	49.2	205.9		31,600
185	47.7	201.3		22,600

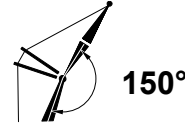
282.2 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.8	289.6	552,300	585,600
50	81.8	288.8	455,600	585,600
55	80.7	287.9	378,300	585,600
60	79.7	287.0	315,100	585,600
65	78.7	286.0	262,600	561,300
70	77.6	284.8	218,100	507,300
75	76.6	283.6	179,200	459,300
80	75.5	282.3	145,400	416,500
85	74.5	280.8	116,000	378,100
90	73.4	279.3	89,900	343,400
95	72.3	277.7	66,800	311,900
100	71.3	275.9	46,200	283,200
105	70.2	274.1	27,600	257,000
110	69.1	272.1		232,900
115	68.0	270.1		210,800
120	66.9	267.9		190,300
125	65.8	265.6		171,300
130	64.7	263.2		153,700
135	63.5	260.7		137,300
140	62.4	258.0		121,900
145	61.2	255.2		107,600
150	60.0	252.3		94,100
155	58.8	249.2		81,500
160	57.6	246.0		69,600
165	56.4	242.7		58,400
170	55.2	239.1		47,800
175	53.9	235.5		37,800
180	52.6	231.6		28,300
185	51.3	227.5		19,300

MLC650 VPC-MAX S-2

ASME B30.5



154.2 ft



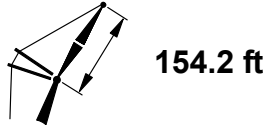
150°

183.7 ft				
ft	°	ft	lb	lb
32	83.0	192.0	773,600	773,600
34	82.4	191.7	773,600	773,600
36	81.7	191.4	761,500	773,600
38	81.1	191.0	696,400	773,600
40	80.5	190.6	638,800	773,600
45	78.9	189.6	520,100	773,600
50	77.3	188.4	427,500	773,600
55	75.7	187.1	352,000	723,300
60	74.0	185.6	290,400	646,100
65	72.4	183.9	239,000	579,400
70	70.7	182.1	195,600	521,400
75	69.1	180.2	158,500	470,400
80	67.4	178.0	126,400	425,200
85	65.6	175.7	98,300	384,900
90	63.9	173.2	73,600	348,800
95	62.1	170.5	51,600	316,300
100	60.3	167.5	32,000	286,800
105	58.5	164.4		259,900
110	56.6	161.1		235,400
115	54.7	157.5		212,900
120	52.7	153.6		192,100
125	50.7	149.4		173,000
130	48.6	145.0		155,400
135	46.4	140.1		139,000
140	44.2	134.9		123,700
145	41.8	129.3		109,600
150	39.4	123.1		96,300
155	36.8	116.4		84,000
160	34.0	109.0		72,500
165	30.9	100.7		61,700

203.4 ft				
ft	°	ft	lb	lb
36	82.5	211.3	768,300	773,600
38	82.0	211.0	702,700	773,600
40	81.4	210.7	644,600	773,600
45	80.0	209.7	524,900	773,600
50	78.5	208.6	432,100	773,600
55	77.1	207.4	357,200	717,100
60	75.6	206.1	295,000	641,200
65	74.2	204.6	243,300	575,500
70	72.7	203.0	199,500	518,200
75	71.2	201.3	162,100	467,800
80	69.7	199.4	129,700	423,000
85	68.2	197.3	101,400	383,100
90	66.6	195.1	76,400	347,200
95	65.1	192.7	54,200	314,900
100	63.5	190.1	34,400	285,500
105	61.9	187.4		258,800
110	60.2	184.5		234,300
115	58.6	181.4		211,900
120	56.9	178.1		191,200
125	55.2	174.5		172,100
130	53.4	170.8		154,400
135	51.6	166.7		137,900
140	49.7	162.4		122,600
145	47.8	157.9		108,400
150	45.9	153.0		95,000
155	43.8	147.7		82,500
160	41.7	142.0		70,800
165	39.5	135.9		59,800
170	37.1	129.3		49,500
175	34.6	122.0		39,800
180	32.0	114.0		30,600

MLC650 VPC-MAX S-2

ASME B30.5

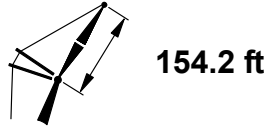


223.1 ft				
ft	°	ft	lb	lb
38	82.7	230.9	703,700	728,800
40	82.2	230.6	645,200	728,800
45	80.9	229.8	524,700	728,800
50	79.6	228.8	431,200	728,800
55	78.2	227.7	356,500	707,000
60	76.9	226.5	294,700	632,300
65	75.6	225.1	242,600	567,500
70	74.3	223.7	198,600	510,900
75	72.9	222.1	160,900	461,000
80	71.6	220.4	128,300	416,700
85	70.2	218.5	99,700	377,100
90	68.8	216.5	74,600	341,500
95	67.4	214.4	52,300	309,300
100	66.0	212.1	32,300	280,200
105	64.6	209.7		253,500
110	63.1	207.1		229,200
115	61.7	204.4		206,800
120	60.2	201.5		186,200
125	58.7	198.4		167,100
130	57.1	195.1		149,400
135	55.6	191.6		133,000
140	54.0	187.9		117,700
145	52.3	184.0		103,400
150	50.7	179.8		90,000
155	49.0	175.4		77,400
160	47.2	170.7		65,600
165	45.4	165.8		54,600
170	43.5	160.5		44,100
175	41.6	154.8		34,300
180	39.5	148.7		25,000

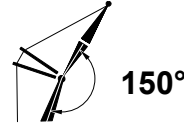
242.8 ft				
ft	°	ft	lb	lb
40	82.8	250.5	648,200	683,200
45	81.6	249.7	527,000	683,200
50	80.4	248.8	432,800	683,200
55	79.2	247.8	357,700	683,200
60	78.0	246.7	296,300	625,100
65	76.8	245.5	244,200	561,500
70	75.6	244.2	200,000	505,700
75	74.3	242.7	162,000	456,400
80	73.1	241.2	129,200	412,700
85	71.9	239.5	100,500	373,500
90	70.6	237.7	75,200	338,200
95	69.3	235.8	52,700	306,300
100	68.1	233.7	32,600	277,300
105	66.8	231.5		250,900
110	65.5	229.2		226,600
115	64.2	226.7		204,400
120	62.8	224.1		183,800
125	61.5	221.3		164,800
130	60.1	218.4		147,200
135	58.7	215.3		130,700
140	57.3	212.1		115,400
145	55.9	208.6		101,200
150	54.4	205.0		87,800
155	53.0	201.2		75,200
160	51.4	197.1		63,400
165	49.9	192.9		52,300
170	48.3	188.4		41,800
175	46.7	183.6		31,900
180	45.0	178.6		22,500

MLC650 VPC-MAX S-2

ASME B30.5



154.2 ft



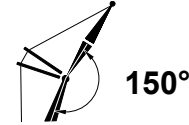
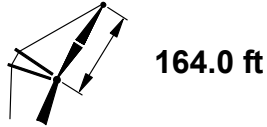
150°

262.5 ft				
ft	°	ft	lb	lb
45	82.3	269.7	528,900	634,400
50	81.1	268.8	434,300	634,400
55	80.0	267.9	358,700	634,400
60	78.9	266.9	296,900	617,200
65	77.8	265.8	245,500	554,900
70	76.7	264.6	201,200	500,100
75	75.6	263.2	163,000	451,700
80	74.4	261.8	130,000	408,500
85	73.3	260.2	101,200	369,800
90	72.1	258.6	75,800	334,900
95	71.0	256.8	53,200	303,300
100	69.8	254.9	33,000	274,600
105	68.6	252.9		248,300
110	67.4	250.8		224,300
115	66.2	248.6		202,100
120	65.0	246.2		181,700
125	63.8	243.7		162,800
130	62.6	241.1		145,200
135	61.3	238.3		128,800
140	60.1	235.4		113,600
145	58.8	232.3		99,300
150	57.5	229.0		85,900
155	56.2	225.7		73,400
160	54.8	222.1		61,600
165	53.5	218.3		50,500
170	52.1	214.4		40,000
175	50.7	210.2		30,000
180	49.2	205.9		20,700

282.2 ft				
ft	°	ft	lb	lb
45	82.8	289.6	529,600	585,600
50	81.8	288.8	434,400	585,600
55	80.7	287.9	358,400	585,600
60	79.7	287.0	296,300	585,600
65	78.7	286.0	244,600	546,800
70	77.6	284.8	200,900	493,100
75	76.6	283.6	162,600	445,400
80	75.5	282.3	129,400	402,900
85	74.5	280.8	100,400	364,700
90	73.4	279.3	74,900	330,200
95	72.3	277.7	52,100	299,000
100	71.3	275.9	31,800	270,500
105	70.2	274.1		244,400
110	69.1	272.1		220,600
115	68.0	270.1		198,600
120	66.9	267.9		178,200
125	65.8	265.6		159,400
130	64.7	263.2		141,900
135	63.5	260.7		125,600
140	62.4	258.0		110,400
145	61.2	255.2		96,200
150	60.0	252.3		82,800
155	58.8	249.2		70,300
160	57.6	246.0		58,500
165	56.4	242.7		47,400
170	55.2	239.1		36,900
175	53.9	235.5		26,900
180	52.6	231.6		17,500

MLC650 VPC-MAX S-2

ASME B30.5

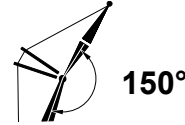
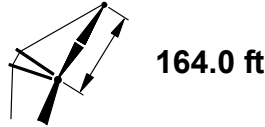


183.7 ft				
ft	°	ft	lb	lb
32	83.0	192.0	773,600	773,600
34	82.4	191.7	773,600	773,600
36	81.7	191.4	740,300	773,600
38	81.1	191.0	676,100	773,600
40	80.5	190.6	619,300	773,600
45	78.9	189.6	502,300	773,600
50	77.3	188.4	411,000	773,600
55	75.7	187.1	336,600	710,800
60	74.0	185.6	275,700	634,000
65	72.4	183.9	225,100	567,700
70	70.7	182.1	182,400	510,000
75	69.1	180.2	145,800	459,300
80	67.4	178.0	114,100	414,500
85	65.6	175.7	86,400	374,500
90	63.9	173.2	62,100	338,600
95	62.1	170.5	40,500	306,300
100	60.3	167.5	21,200	277,000
105	58.5	164.4		250,300
110	56.6	161.1		225,900
115	54.7	157.5		203,600
120	52.7	153.6		183,100
125	50.7	149.4		164,100
130	48.6	145.0		146,600
135	46.4	140.1		130,400
140	44.2	134.9		115,300
145	41.8	129.3		101,300
150	39.4	123.1		88,200
155	36.8	116.4		76,000
160	34.0	109.0		64,600
165	30.9	100.7		54,000

203.4 ft				
ft	°	ft	lb	lb
36	82.5	211.3	747,500	773,600
38	82.0	211.0	682,800	773,600
40	81.4	210.7	625,500	773,600
45	80.0	209.7	507,500	773,600
50	78.5	208.6	415,900	773,600
55	77.1	207.4	342,000	705,000
60	75.6	206.1	280,800	629,500
65	74.2	204.6	229,700	564,200
70	72.7	203.0	186,600	507,200
75	71.2	201.3	149,700	457,100
80	69.7	199.4	117,800	412,700
85	68.2	197.3	89,800	373,000
90	66.6	195.1	65,200	337,400
95	65.1	192.7	43,400	305,200
100	63.5	190.1	23,900	276,100
105	61.9	187.4		249,500
110	60.2	184.5		225,200
115	58.6	181.4		202,900
120	56.9	178.1		182,400
125	55.2	174.5		163,400
130	53.4	170.8		145,900
135	51.6	166.7		129,600
140	49.7	162.4		114,400
145	47.8	157.9		100,300
150	45.9	153.0		87,000
155	43.8	147.7		74,700
160	41.7	142.0		63,100
165	39.5	135.9		52,200
170	37.1	129.3		42,000
175	34.6	122.0		32,400
180	32.0	114.0		23,400

MLC650 VPC-MAX S-2

ASME B30.5

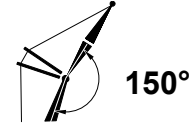
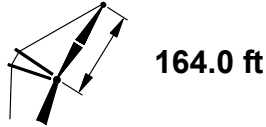


223.1 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
38	82.7	230.9	684,100	728,800
40	82.2	230.6	626,400	728,800
45	80.9	229.8	507,600	728,800
50	79.6	228.8	415,400	728,800
55	78.2	227.7	341,700	695,300
60	76.9	226.5	280,700	621,000
65	75.6	225.1	229,400	556,600
70	74.3	223.7	186,000	500,300
75	72.9	222.1	148,800	450,700
80	71.6	220.4	116,600	406,600
85	70.2	218.5	88,500	367,300
90	68.8	216.5	63,700	331,900
95	67.4	214.4	41,700	300,000
100	66.0	212.1	22,100	271,000
105	64.6	209.7		244,500
110	63.1	207.1		220,400
115	61.7	204.4		198,100
120	60.2	201.5		177,600
125	58.7	198.4		158,700
130	57.1	195.1		141,200
135	55.6	191.6		124,900
140	54.0	187.9		109,700
145	52.3	184.0		95,500
150	50.7	179.8		82,200
155	49.0	175.4		69,800
160	47.2	170.7		58,100
165	45.4	165.8		47,100
170	43.5	160.5		36,800
175	41.6	154.8		27,000
180	39.5	148.7		17,800

242.8 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
40	82.8	250.5	629,700	683,200
45	81.6	249.7	510,100	683,200
50	80.4	248.8	417,300	683,200
55	79.2	247.8	343,100	683,200
60	78.0	246.7	282,600	614,200
65	76.8	245.5	231,300	550,900
70	75.6	244.2	187,600	495,400
75	74.3	242.7	150,200	446,500
80	73.1	241.2	117,800	402,900
85	71.9	239.5	89,500	364,000
90	70.6	237.7	64,600	328,900
95	69.3	235.8	42,400	297,200
100	68.1	233.7	22,600	268,400
105	66.8	231.5		242,100
110	65.5	229.2		218,100
115	64.2	226.7		195,900
120	62.8	224.1		175,500
125	61.5	221.3		156,600
130	60.1	218.4		139,100
135	58.7	215.3		122,800
140	57.3	212.1		107,700
145	55.9	208.6		93,500
150	54.4	205.0		80,200
155	53.0	201.2		67,700
160	51.4	197.1		56,000
165	49.9	192.9		45,000
170	48.3	188.4		34,600
175	46.7	183.6		24,800

MLC650 VPC-MAX S-2

ASME B30.5

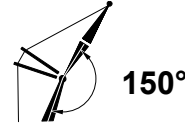
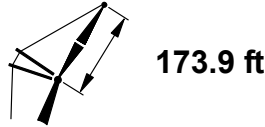


262.5 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.3	269.7	512,200	634,400
50	81.1	268.8	418,900	634,400
55	80.0	267.9	344,300	634,400
60	78.9	266.9	283,400	606,700
65	77.8	265.8	232,800	544,600
70	76.7	264.6	189,000	490,200
75	75.6	263.2	151,400	441,900
80	74.4	261.8	118,900	399,000
85	73.3	260.2	90,400	360,500
90	72.1	258.6	65,300	325,900
95	71.0	256.8	43,100	294,500
100	69.8	254.9	23,200	265,900
105	68.6	252.9		239,800
110	67.4	250.8		215,900
115	66.2	248.6		193,900
120	65.0	246.2		173,600
125	63.8	243.7		154,800
130	62.6	241.1		137,400
135	61.3	238.3		121,100
140	60.1	235.4		106,000
145	58.8	232.3		91,800
150	57.5	229.0		78,500
155	56.2	225.7		66,100
160	54.8	222.1		54,400
165	53.5	218.3		43,300
170	52.1	214.4		32,900
175	50.7	210.2		23,100

282.2 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.8	289.6	513,100	585,600
50	81.8	288.8	419,200	585,600
55	80.7	287.9	344,300	585,600
60	79.7	287.0	283,000	585,600
65	78.7	286.0	232,100	536,800
70	77.6	284.8	188,900	483,400
75	76.6	283.6	151,200	436,000
80	75.5	282.3	118,400	393,700
85	74.5	280.8	89,800	355,700
90	73.4	279.3	64,600	321,400
95	72.3	277.7	42,200	290,300
100	71.3	275.9	22,200	262,000
105	70.2	274.1		236,200
110	69.1	272.1		212,400
115	68.0	270.1		190,500
120	66.9	267.9		170,300
125	65.8	265.6		151,600
130	64.7	263.2		134,300
135	63.5	260.7		118,100
140	62.4	258.0		103,000
145	61.2	255.2		88,800
150	60.0	252.3		75,600
155	58.8	249.2		63,100
160	57.6	246.0		51,400
165	56.4	242.7		40,400
170	55.2	239.1		30,000
175	53.9	235.5		20,100

MLC650 VPC-MAX S-2

ASME B30.5

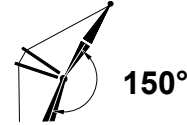
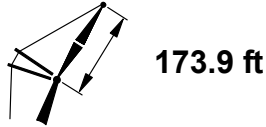


183.7 ft				
ft	°	ft	lb	lb
32	83.0	192.0	773,600	773,600
34	82.4	191.7	773,600	773,600
36	81.7	191.4	710,400	773,600
38	81.1	191.0	647,400	773,600
40	80.5	190.6	591,600	773,600
45	78.9	189.6	476,800	773,600
50	77.3	188.4	387,100	773,600
55	75.7	187.1	314,100	692,200
60	74.0	185.6	254,400	615,900
65	72.4	183.9	204,700	550,200
70	70.7	182.1	162,700	493,000
75	69.1	180.2	126,800	442,700
80	67.4	178.0	95,800	398,200
85	65.6	175.7	68,700	358,500
90	63.9	173.2	44,800	323,000
95	62.1	170.5	23,600	290,900
100	60.3	167.5		261,900
105	58.5	164.4		235,500
110	56.6	161.1		211,400
115	54.7	157.5		189,300
120	52.7	153.6		169,000
125	50.7	149.4		150,200
130	48.6	145.0		132,900
135	46.4	140.1		116,800
140	44.2	134.9		101,900
145	41.8	129.3		88,100
150	39.4	123.1		75,200
155	36.8	116.4		63,200
160	34.0	109.0		52,000
165	30.9	100.7		41,500

203.4 ft				
ft	°	ft	lb	lb
36	82.5	211.3	718,100	773,600
38	82.0	211.0	654,500	773,600
40	81.4	210.7	598,300	773,600
45	80.0	209.7	482,400	773,600
50	78.5	208.6	392,500	773,600
55	77.1	207.4	320,000	687,000
60	75.6	206.1	259,800	612,100
65	74.2	204.6	209,800	547,300
70	72.7	203.0	167,400	490,700
75	71.2	201.3	131,200	441,000
80	69.7	199.4	99,900	396,900
85	68.2	197.3	72,500	357,600
90	66.6	195.1	48,400	322,200
95	65.1	192.7	27,000	290,400
100	63.5	190.1		261,500
105	61.9	187.4		235,100
110	60.2	184.5		211,100
115	58.6	181.4		189,000
120	56.9	178.1		168,700
125	55.2	174.5		149,900
130	53.4	170.8		132,500
135	51.6	166.7		116,400
140	49.7	162.4		101,400
145	47.8	157.9		87,400
150	45.9	153.0		74,300
155	43.8	147.7		62,100
160	41.7	142.0		50,700
165	39.5	135.9		39,900
170	37.1	129.3		29,900
175	34.6	122.0		20,400

MLC650 VPC-MAX S-2

ASME B30.5

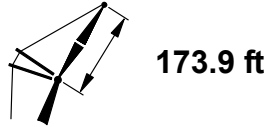


223.1 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
38	82.7	230.9	656,200	728,800
40	82.2	230.6	599,600	728,800
45	80.9	229.8	482,900	728,800
50	79.6	228.8	392,400	728,800
55	78.2	227.7	320,100	677,900
60	76.9	226.5	260,200	604,000
65	75.6	225.1	209,800	540,100
70	74.3	223.7	167,200	484,200
75	72.9	222.1	130,700	435,000
80	71.6	220.4	99,100	391,300
85	70.2	218.5	71,500	352,300
90	68.8	216.5	47,200	317,200
95	67.4	214.4	25,600	285,500
100	66.0	212.1		256,800
105	64.6	209.7		230,600
110	63.1	207.1		206,600
115	61.7	204.4		184,600
120	60.2	201.5		164,300
125	58.7	198.4		145,500
130	57.1	195.1		128,100
135	55.6	191.6		112,000
140	54.0	187.9		96,900
145	52.3	184.0		82,900
150	50.7	179.8		69,800
155	49.0	175.4		57,500
160	47.2	170.7		45,900
165	45.4	165.8		35,100
170	43.5	160.5		24,900

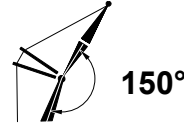
242.8 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
40	82.8	250.5	603,200	683,200
45	81.6	249.7	485,800	683,200
50	80.4	248.8	394,600	683,200
55	79.2	247.8	321,800	670,200
60	78.0	246.7	262,400	597,800
65	76.8	245.5	212,000	534,900
70	75.6	244.2	169,100	479,800
75	74.3	242.7	132,400	431,200
80	73.1	241.2	100,600	388,000
85	71.9	239.5	72,900	349,300
90	70.6	237.7	48,400	314,600
95	69.3	235.8	26,600	283,100
100	68.1	233.7		254,500
105	66.8	231.5		228,500
110	65.5	229.2		204,600
115	64.2	226.7		182,700
120	62.8	224.1		162,500
125	61.5	221.3		143,700
130	60.1	218.4		126,400
135	58.7	215.3		110,300
140	57.3	212.1		95,200
145	55.9	208.6		81,200
150	54.4	205.0		68,000
155	53.0	201.2		55,700
160	51.4	197.1		44,100
165	49.9	192.9		33,200
170	48.3	188.4		22,900

MLC650 VPC-MAX S-2

ASME B30.5



173.9 ft



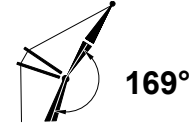
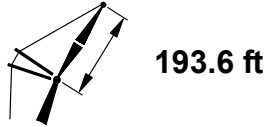
150°

262.5 ft				
ft	°	ft	lb	lb
45	82.3	269.7	488,200	634,400
50	81.1	268.8	396,500	634,400
55	80.0	267.9	323,300	634,400
60	78.9	266.9	263,500	590,600
65	77.8	265.8	213,800	529,000
70	76.7	264.6	170,800	474,900
75	75.6	263.2	133,900	427,100
80	74.4	261.8	102,000	384,400
85	73.3	260.2	74,000	346,200
90	72.1	258.6	49,400	311,800
95	71.0	256.8	27,600	280,700
100	69.8	254.9		252,400
105	68.6	252.9		226,500
110	67.4	250.8		202,800
115	66.2	248.6		180,900
120	65.0	246.2		160,800
125	63.8	243.7		142,200
130	62.6	241.1		124,900
135	61.3	238.3		108,800
140	60.1	235.4		93,800
145	58.8	232.3		79,800
150	57.5	229.0		66,600
155	56.2	225.7		54,300
160	54.8	222.1		42,700
165	53.5	218.3		31,800
170	52.1	214.4		21,500

282.2 ft				
ft	°	ft	lb	lb
45	82.8	289.6	489,300	585,600
50	81.8	288.8	397,100	585,600
55	80.7	287.9	323,500	585,600
60	79.7	287.0	263,400	581,900
65	78.7	286.0	213,300	521,600
70	77.6	284.8	171,000	468,600
75	76.6	283.6	133,900	421,500
80	75.5	282.3	101,800	379,500
85	74.5	280.8	73,700	341,700
90	73.4	279.3	48,900	307,700
95	72.3	277.7	27,000	276,900
100	71.3	275.9		248,800
105	70.2	274.1		223,100
110	69.1	272.1		199,500
115	68.0	270.1		177,900
120	66.9	267.9		157,800
125	65.8	265.6		139,300
130	64.7	263.2		122,000
135	63.5	260.7		106,000
140	62.4	258.0		91,000
145	61.2	255.2		77,000
150	60.0	252.3		63,900
155	58.8	249.2		51,600
160	57.6	246.0		40,000
165	56.4	242.7		29,000
170	55.2	239.1		18,700

MLC650 VPC-MAX S-2

ASME B30.5

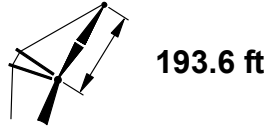


183.7 ft				
ft	°	ft	lb	lb
32	83.0	192.0	773,600	773,600
34	82.4	191.7	773,600	773,600
36	81.7	191.4	773,600	773,600
38	81.1	191.0	763,300	773,600
40	80.5	190.6	699,100	773,600
45	78.9	189.6	566,800	773,600
50	77.3	188.4	463,400	773,600
55	75.7	187.1	379,300	743,700
60	74.0	185.6	310,500	661,100
65	72.4	183.9	253,200	589,900
70	70.7	182.1	204,700	527,700
75	69.1	180.2	163,100	473,100
80	67.4	178.0	127,100	424,600
85	65.6	175.7	95,600	381,400
90	63.9	173.2	67,700	342,600
95	62.1	170.5	43,000	307,600
100	60.3	167.5	20,900	275,800
105	58.5	164.4		246,800
110	56.6	161.1		220,300
115	54.7	157.5		195,900
120	52.7	153.6		173,500
125	50.7	149.4		152,700
130	48.6	145.0		133,400
135	46.4	140.1		115,500
140	44.2	134.9		98,800
145	41.8	129.3		83,200
150	39.4	123.1		68,500
155	36.8	116.4		54,700
160	34.0	109.0		41,800
165	30.9	100.7		29,600
170	27.6	91.2		18,100

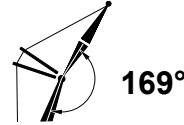
203.4 ft				
ft	°	ft	lb	lb
36	82.5	211.3	773,600	773,600
38	82.0	211.0	772,600	773,600
40	81.4	210.7	707,900	773,600
45	80.0	209.7	574,700	773,600
50	78.5	208.6	471,200	773,600
55	77.1	207.4	387,700	740,000
60	75.6	206.1	318,600	658,900
65	74.2	204.6	260,900	588,700
70	72.7	203.0	212,100	527,500
75	71.2	201.3	170,300	473,500
80	69.7	199.4	134,100	425,700
85	68.2	197.3	102,400	382,900
90	66.6	195.1	74,400	344,500
95	65.1	192.7	49,600	309,700
100	63.5	190.1	27,300	278,200
105	61.9	187.4		249,500
110	60.2	184.5		223,100
115	58.6	181.4		198,900
120	56.9	178.1		176,600
125	55.2	174.5		156,000
130	53.4	170.8		136,800
135	51.6	166.7		119,000
140	49.7	162.4		102,300
145	47.8	157.9		86,800
150	45.9	153.0		72,200
155	43.8	147.7		58,500
160	41.7	142.0		45,600
165	39.5	135.9		33,400
170	37.1	129.3		21,900

MLC650 VPC-MAX S-2

ASME B30.5



193.6 ft



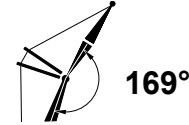
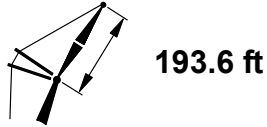
169°

223.1 ft				
ft	°	ft	lb	lb
38	82.7	230.9	728,800	728,800
40	82.2	230.6	711,000	728,800
45	80.9	229.8	577,000	728,800
50	79.6	228.8	473,000	728,800
55	78.2	227.7	389,800	728,800
60	76.9	226.5	321,000	652,100
65	75.6	225.1	263,000	583,000
70	74.3	223.7	214,100	522,500
75	72.9	222.1	172,100	469,200
80	71.6	220.4	135,700	421,900
85	70.2	218.5	103,800	379,500
90	68.8	216.5	75,700	341,400
95	67.4	214.4	50,800	307,000
100	66.0	212.1	28,400	275,700
105	64.6	209.7		247,200
110	63.1	207.1		221,000
115	61.7	204.4		197,000
120	60.2	201.5		174,800
125	58.7	198.4		154,300
130	57.1	195.1		135,200
135	55.6	191.6		117,500
140	54.0	187.9		100,900
145	52.3	184.0		85,400
150	50.7	179.8		70,900
155	49.0	175.4		57,200
160	47.2	170.7		44,400
165	45.4	165.8		32,300
170	43.5	160.5		20,800

242.8 ft				
ft	°	ft	lb	lb
40	82.8	250.5	683,200	683,200
45	81.6	249.7	581,400	683,200
50	80.4	248.8	476,800	683,200
55	79.2	247.8	393,200	683,200
60	78.0	246.7	324,800	646,600
65	76.8	245.5	267,000	578,700
70	75.6	244.2	217,800	519,200
75	74.3	242.7	175,600	466,700
80	73.1	241.2	139,100	419,900
85	71.9	239.5	107,100	378,000
90	70.6	237.7	78,900	340,400
95	69.3	235.8	53,800	306,200
100	68.1	233.7	31,400	275,200
105	66.8	231.5		246,900
110	65.5	229.2		221,000
115	64.2	226.7		197,100
120	62.8	224.1		175,000
125	61.5	221.3		154,600
130	60.1	218.4		135,700
135	58.7	215.3		118,000
140	57.3	212.1		101,500
145	55.9	208.6		86,100
150	54.4	205.0		71,600
155	53.0	201.2		58,100
160	51.4	197.1		45,300
165	49.9	192.9		33,200
170	48.3	188.4		21,800

MLC650 VPC-MAX S-2

ASME B30.5

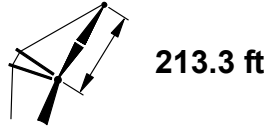


262.5 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.3	269.7	585,100	634,400
50	81.1	268.8	480,000	634,400
55	80.0	267.9	396,000	634,400
60	78.9	266.9	327,400	634,400
65	77.8	265.8	270,300	573,500
70	76.7	264.6	221,000	515,100
75	75.6	263.2	178,700	463,400
80	74.4	261.8	142,000	417,400
85	73.3	260.2	109,900	376,100
90	72.1	258.6	81,600	338,900
95	71.0	256.8	56,400	305,100
100	69.8	254.9	33,900	274,400
105	68.6	252.9		246,400
110	67.4	250.8		220,600
115	66.2	248.6		196,900
120	65.0	246.2		175,000
125	63.8	243.7		154,800
130	62.6	241.1		135,900
135	61.3	238.3		118,400
140	60.1	235.4		102,000
145	58.8	232.3		86,600
150	57.5	229.0		72,200
155	56.2	225.7		58,700
160	54.8	222.1		46,000
165	53.5	218.3		34,000
170	52.1	214.4		22,600

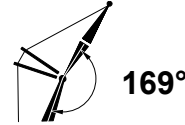
282.2 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.8	289.6	585,600	585,600
50	81.8	288.8	481,700	585,600
55	80.7	287.9	397,400	585,600
60	79.7	287.0	328,400	585,600
65	78.7	286.0	271,000	566,400
70	77.6	284.8	222,400	509,200
75	76.6	283.6	179,900	458,500
80	75.5	282.3	143,100	413,200
85	74.5	280.8	110,900	372,400
90	73.4	279.3	82,500	335,700
95	72.3	277.7	57,200	302,300
100	71.3	275.9	34,600	271,900
105	70.2	274.1		244,100
110	69.1	272.1		218,600
115	68.0	270.1		195,100
120	66.9	267.9		173,400
125	65.8	265.6		153,200
130	64.7	263.2		134,500
135	63.5	260.7		117,000
140	62.4	258.0		100,700
145	61.2	255.2		85,400
150	60.0	252.3		71,100
155	58.8	249.2		57,700
160	57.6	246.0		45,000
165	56.4	242.7		33,000
170	55.2	239.1		21,700

MLC650 VPC-MAX S-2

ASME B30.5



213.3 ft



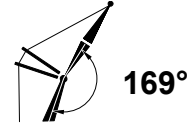
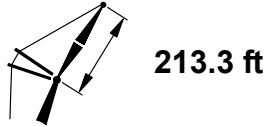
169°

183.7 ft				
ft	°	ft	lb	lb
32	83.0	192.0	773,600	773,600
34	82.4	191.7	773,600	773,600
36	81.7	191.4	773,600	773,600
38	81.1	191.0	731,900	773,600
40	80.5	190.6	668,300	773,600
45	78.9	189.6	537,300	773,600
50	77.3	188.4	435,000	773,600
55	75.7	187.1	351,700	720,900
60	74.0	185.6	283,600	638,400
65	72.4	183.9	226,800	567,300
70	70.7	182.1	178,800	505,300
75	69.1	180.2	137,700	450,700
80	67.4	178.0	102,000	402,400
85	65.6	175.7	70,900	359,300
90	63.9	173.2	43,300	320,600
95	62.1	170.5	18,900	285,700
100	60.3	167.5		254,000
105	58.5	164.4		225,100
110	56.6	161.1		198,700
115	54.7	157.5		174,400
120	52.7	153.6		152,000
125	50.7	149.4		131,300
130	48.6	145.0		112,100
135	46.4	140.1		94,300
140	44.2	134.9		77,600
145	41.8	129.3		62,100
150	39.4	123.1		47,500
155	36.8	116.4		33,800
160	34.0	109.0		20,900

203.4 ft				
ft	°	ft	lb	lb
36	82.5	211.3	773,600	773,600
38	82.0	211.0	742,300	773,600
40	81.4	210.7	678,200	773,600
45	80.0	209.7	546,400	773,600
50	78.5	208.6	443,900	773,600
55	77.1	207.4	361,300	718,400
60	75.6	206.1	292,800	637,400
65	74.2	204.6	235,700	567,400
70	72.7	203.0	187,500	506,200
75	71.2	201.3	146,100	452,400
80	69.7	199.4	110,300	404,600
85	68.2	197.3	78,900	362,000
90	66.6	195.1	51,200	323,600
95	65.1	192.7	26,600	289,000
100	63.5	190.1		257,600
105	61.9	187.4		228,900
110	60.2	184.5		202,600
115	58.6	181.4		178,500
120	56.9	178.1		156,300
125	55.2	174.5		135,700
130	53.4	170.8		116,600
135	51.6	166.7		98,800
140	49.7	162.4		82,300
145	47.8	157.9		66,800
150	45.9	153.0		52,200
155	43.8	147.7		38,600
160	41.7	142.0		25,800

MLC650 VPC-MAX S-2

ASME B30.5

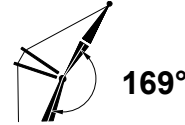
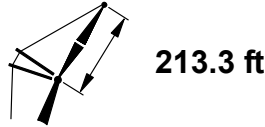


223.1 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
38	82.7	230.9	728,800	728,800
40	82.2	230.6	682,300	728,800
45	80.9	229.8	549,600	728,800
50	79.6	228.8	446,600	728,800
55	78.2	227.7	364,300	711,200
60	76.9	226.5	296,200	631,600
65	75.6	225.1	238,900	562,600
70	74.3	223.7	190,400	502,200
75	72.9	222.1	148,800	449,000
80	71.6	220.4	112,800	401,800
85	70.2	218.5	81,300	359,600
90	68.8	216.5	53,500	321,600
95	67.4	214.4	28,800	287,200
100	66.0	212.1		256,000
105	64.6	209.7		227,600
110	63.1	207.1		201,500
115	61.7	204.4		177,500
120	60.2	201.5		155,400
125	58.7	198.4		135,000
130	57.1	195.1		116,000
135	55.6	191.6		98,300
140	54.0	187.9		81,800
145	52.3	184.0		66,300
150	50.7	179.8		51,900
155	49.0	175.4		38,300
160	47.2	170.7		25,500

242.8 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
40	82.8	250.5	683,200	683,200
45	81.6	249.7	554,800	683,200
50	80.4	248.8	451,200	683,200
55	79.2	247.8	368,500	683,200
60	78.0	246.7	300,900	627,000
65	76.8	245.5	243,600	559,200
70	75.6	244.2	194,900	499,800
75	74.3	242.7	153,200	447,300
80	73.1	241.2	117,000	400,700
85	71.9	239.5	85,400	358,900
90	70.6	237.7	57,500	321,300
95	69.3	235.8	32,600	287,300
100	68.1	233.7		256,400
105	66.8	231.5		228,100
110	65.5	229.2		202,300
115	64.2	226.7		178,400
120	62.8	224.1		156,500
125	61.5	221.3		136,100
130	60.1	218.4		117,200
135	58.7	215.3		99,600
140	57.3	212.1		83,200
145	55.9	208.6		67,800
150	54.4	205.0		53,400
155	53.0	201.2		39,900
160	51.4	197.1		27,200

MLC650 VPC-MAX S-2

ASME B30.5

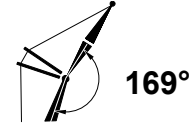
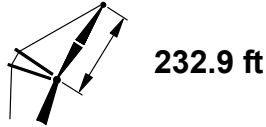


262.5 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.3	269.7	559,200	634,400
50	81.1	268.8	455,100	634,400
55	80.0	267.9	372,000	634,400
60	78.9	266.9	304,100	621,100
65	77.8	265.8	247,600	554,800
70	76.7	264.6	198,800	496,500
75	75.6	263.2	156,900	444,900
80	74.4	261.8	120,600	398,900
85	73.3	260.2	88,900	357,700
90	72.1	258.6	60,800	320,600
95	71.0	256.8	35,900	286,900
100	69.8	254.9		256,300
105	68.6	252.9		228,300
110	67.4	250.8		202,600
115	66.2	248.6		179,000
120	65.0	246.2		157,200
125	63.8	243.7		137,000
130	62.6	241.1		118,200
135	61.3	238.3		100,700
140	60.1	235.4		84,300
145	58.8	232.3		69,100
150	57.5	229.0		54,700
155	56.2	225.7		41,200
160	54.8	222.1		28,500

282.2 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.8	289.6	561,900	585,600
50	81.8	288.8	457,500	585,600
55	80.7	287.9	374,000	585,600
60	79.7	287.0	305,700	585,600
65	78.7	286.0	248,900	548,500
70	77.6	284.8	200,800	491,400
75	76.6	283.6	158,800	440,700
80	75.5	282.3	122,300	395,400
85	74.5	280.8	90,500	354,800
90	73.4	279.3	62,300	318,100
95	72.3	277.7	37,300	284,800
100	71.3	275.9		254,500
105	70.2	274.1		226,700
110	69.1	272.1		201,300
115	68.0	270.1		177,800
120	66.9	267.9		156,100
125	65.8	265.6		136,000
130	64.7	263.2		117,400
135	63.5	260.7		100,000
140	62.4	258.0		83,700
145	61.2	255.2		68,500
150	60.0	252.3		54,200
155	58.8	249.2		40,800
160	57.6	246.0		28,100

MLC650 VPC-MAX S-2

ASME B30.5

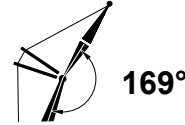
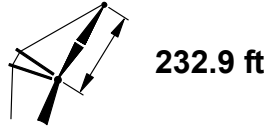


183.7 ft				
ft	°	ft	lb	lb
32	83.0	192.0	773,600	773,600
34	82.4	191.7	773,600	773,600
36	81.7	191.4	761,500	773,600
38	81.1	191.0	690,600	773,600
40	80.5	190.6	627,800	773,600
45	78.9	189.6	498,500	773,600
50	77.3	188.4	397,500	773,600
55	75.7	187.1	315,300	690,300
60	74.0	185.6	248,100	608,100
65	72.4	183.9	192,100	537,200
70	70.7	182.1	144,700	475,300
75	69.1	180.2	104,100	421,000
80	67.4	178.0	69,000	372,800
85	65.6	175.7	38,200	329,900
90	63.9	173.2		291,300
95	62.1	170.5		256,500
100	60.3	167.5		224,900
105	58.5	164.4		196,200
110	56.6	161.1		169,900
115	54.7	157.5		145,700
120	52.7	153.6		123,400
125	50.7	149.4		102,800
130	48.6	145.0		83,700
135	46.4	140.1		66,000
140	44.2	134.9		49,400
145	41.8	129.3		34,000
150	39.4	123.1		19,500

203.4 ft				
ft	°	ft	lb	lb
36	82.5	211.3	773,600	773,600
38	82.0	211.0	702,300	773,600
40	81.4	210.7	639,100	773,600
45	80.0	209.7	508,900	773,600
50	78.5	208.6	407,800	773,600
55	77.1	207.4	326,300	689,300
60	75.6	206.1	258,700	608,500
65	74.2	204.6	202,400	538,700
70	72.7	203.0	154,800	477,700
75	71.2	201.3	113,900	424,100
80	69.7	199.4	78,600	376,500
85	68.2	197.3	47,600	333,900
90	66.6	195.1	20,300	295,700
95	65.1	192.7		261,200
100	63.5	190.1		229,900
105	61.9	187.4		201,400
110	60.2	184.5		175,200
115	58.6	181.4		151,200
120	56.9	178.1		129,100
125	55.2	174.5		108,600
130	53.4	170.8		89,600
135	51.6	166.7		71,900
140	49.7	162.4		55,400
145	47.8	157.9		40,000
150	45.9	153.0		25,600

MLC650 VPC-MAX S-2

ASME B30.5

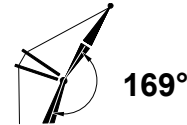
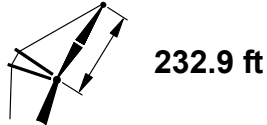


223.1 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
38	82.7	230.9	707,800	728,800
40	82.2	230.6	644,300	728,800
45	80.9	229.8	513,400	728,800
50	79.6	228.8	411,700	728,800
55	78.2	227.7	330,500	683,500
60	76.9	226.5	263,200	604,000
65	75.6	225.1	206,700	535,200
70	74.3	223.7	158,800	475,000
75	72.9	222.1	117,800	421,900
80	71.6	220.4	82,300	374,800
85	70.2	218.5	51,200	332,700
90	68.8	216.5	23,800	294,900
95	67.4	214.4		260,600
100	66.0	212.1		229,600
105	64.6	209.7		201,200
110	63.1	207.1		175,300
115	61.7	204.4		151,400
120	60.2	201.5		129,400
125	58.7	198.4		109,000
130	57.1	195.1		90,100
135	55.6	191.6		72,500
140	54.0	187.9		56,000
145	52.3	184.0		40,700
150	50.7	179.8		26,300

242.8 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
40	82.8	250.5	651,000	683,200
45	81.6	249.7	519,500	683,200
50	80.4	248.8	417,300	683,200
55	79.2	247.8	335,600	678,400
60	78.0	246.7	268,900	600,500
65	76.8	245.5	212,400	532,900
70	75.6	244.2	164,300	473,600
75	74.3	242.7	123,200	421,300
80	73.1	241.2	87,500	374,800
85	71.9	239.5	56,300	333,100
90	70.6	237.7	28,700	295,600
95	69.3	235.8		261,700
100	68.1	233.7		230,900
105	66.8	231.5		202,800
110	65.5	229.2		177,000
115	64.2	226.7		153,300
120	62.8	224.1		131,400
125	61.5	221.3		111,100
130	60.1	218.4		92,300
135	58.7	215.3		74,800
140	57.3	212.1		58,400
145	55.9	208.6		43,100
150	54.4	205.0		28,800

MLC650 VPC-MAX S-2

ASME B30.5

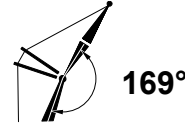
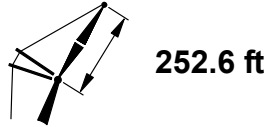


262.5 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.3	269.7	524,600	634,400
50	81.1	268.8	422,000	634,400
55	80.0	267.9	340,000	634,400
60	78.9	266.9	273,000	595,700
65	77.8	265.8	217,200	529,400
70	76.7	264.6	169,000	471,300
75	75.6	263.2	127,700	419,800
80	74.4	261.8	91,900	373,900
85	73.3	260.2	60,600	332,800
90	72.1	258.6	32,900	295,800
95	71.0	256.8		262,200
100	69.8	254.9		231,700
105	68.6	252.9		203,800
110	67.4	250.8		178,200
115	66.2	248.6		154,700
120	65.0	246.2		133,000
125	63.8	243.7		112,800
130	62.6	241.1		94,100
135	61.3	238.3		76,700
140	60.1	235.4		60,400
145	58.8	232.3		45,200
150	57.5	229.0		30,900
155	56.2	225.7		17,500

282.2 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.8	289.6	528,100	585,600
50	81.8	288.8	425,000	585,600
55	80.7	287.9	342,600	585,600
60	79.7	287.0	275,300	585,600
65	78.7	286.0	219,200	524,000
70	77.6	284.8	171,800	467,000
75	76.6	283.6	130,300	416,400
80	75.5	282.3	94,400	371,200
85	74.5	280.8	62,900	330,700
90	73.4	279.3	35,200	294,100
95	72.3	277.7		260,900
100	71.3	275.9		230,700
105	70.2	274.1		203,000
110	69.1	272.1		177,600
115	68.0	270.1		154,300
120	66.9	267.9		132,700
125	65.8	265.6		112,600
130	64.7	263.2		94,000
135	63.5	260.7		76,700
140	62.4	258.0		60,500
145	61.2	255.2		45,300
150	60.0	252.3		31,100
155	58.8	249.2		17,800

MLC650 VPC-MAX S-2

ASME B30.5

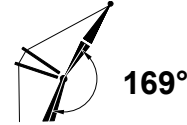
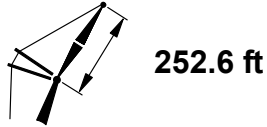


183.7 ft				
ft	°	ft	lb	lb
32	83.0	192.0	773,600	773,600
34	82.4	191.7	773,600	773,600
36	81.7	191.4	725,700	773,600
38	81.1	191.0	655,600	773,600
40	80.5	190.6	593,600	773,600
45	78.9	189.6	465,900	773,600
50	77.3	188.4	366,100	761,300
55	75.7	187.1	284,900	665,100
60	74.0	185.6	218,500	583,100
65	72.4	183.9	163,200	512,400
70	70.7	182.1	116,400	450,700
75	69.1	180.2	76,300	396,600
80	67.4	178.0	41,600	348,600
85	65.6	175.7		305,800
90	63.9	173.2		267,300
95	62.1	170.5		232,700
100	60.3	167.5		201,200
105	58.5	164.4		172,600
110	56.6	161.1		146,400
115	54.7	157.5		122,300
120	52.7	153.6		100,200
125	50.7	149.4		79,700
130	48.6	145.0		60,700
135	46.4	140.1		43,000
140	44.2	134.9		26,500

203.4 ft				
ft	°	ft	lb	lb
36	82.5	211.3	739,100	773,600
38	82.0	211.0	668,600	773,600
40	81.4	210.7	606,200	773,600
45	80.0	209.7	477,600	773,600
50	78.5	208.6	377,700	759,700
55	77.1	207.4	297,200	665,500
60	75.6	206.1	230,400	584,900
65	74.2	204.6	174,800	515,200
70	72.7	203.0	127,700	454,500
75	71.2	201.3	87,400	400,900
80	69.7	199.4	52,500	353,500
85	68.2	197.3	22,000	311,100
90	66.6	195.1		273,100
95	65.1	192.7		238,700
100	63.5	190.1		207,500
105	61.9	187.4		179,000
110	60.2	184.5		153,000
115	58.6	181.4		129,100
120	56.9	178.1		107,000
125	55.2	174.5		86,600
130	53.4	170.8		67,700
135	51.6	166.7		50,100
140	49.7	162.4		33,700
145	47.8	157.9		18,400

MLC650 VPC-MAX S-2

ASME B30.5

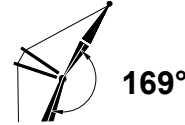
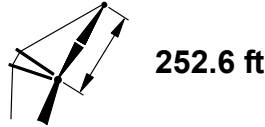


223.1 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
38	82.7	230.9	675,100	728,800
40	82.2	230.6	612,400	728,800
45	80.9	229.8	483,100	728,800
50	79.6	228.8	382,600	728,800
55	78.2	227.7	302,400	660,700
60	76.9	226.5	236,000	581,400
65	75.6	225.1	180,100	512,800
70	74.3	223.7	132,900	452,800
75	72.9	222.1	92,400	399,900
80	71.6	220.4	57,300	352,900
85	70.2	218.5	26,600	311,000
90	68.8	216.5		273,200
95	67.4	214.4		239,100
100	66.0	212.1		208,200
105	64.6	209.7		179,900
110	63.1	207.1		154,100
115	61.7	204.4		130,300
120	60.2	201.5		108,400
125	58.7	198.4		88,100
130	57.1	195.1		69,200
135	55.6	191.6		51,700
140	54.0	187.9		35,400
145	52.3	184.0		20,100

242.8 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
40	82.8	250.5	620,000	683,200
45	81.6	249.7	490,000	683,200
50	80.4	248.8	389,100	683,200
55	79.2	247.8	308,500	656,700
60	78.0	246.7	242,600	578,900
65	76.8	245.5	186,800	511,500
70	75.6	244.2	139,300	452,400
75	74.3	242.7	98,600	400,200
80	73.1	241.2	63,400	353,800
85	71.9	239.5	32,600	312,300
90	70.6	237.7		274,900
95	69.3	235.8		241,100
100	68.1	233.7		210,400
105	66.8	231.5		182,400
110	65.5	229.2		156,700
115	64.2	226.7		133,100
120	62.8	224.1		111,300
125	61.5	221.3		91,100
130	60.1	218.4		72,400
135	58.7	215.3		54,900
140	57.3	212.1		38,700
145	55.9	208.6		23,400

MLC650 VPC-MAX S-2

ASME B30.5

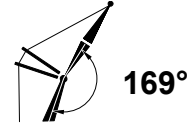


262.5 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.3	269.7	495,900	634,400
50	81.1	268.8	394,600	634,400
55	80.0	267.9	313,600	634,400
60	78.9	266.9	247,400	575,000
65	77.8	265.8	192,300	508,900
70	76.7	264.6	144,800	450,900
75	75.6	263.2	104,000	399,500
80	74.4	261.8	68,600	353,800
85	73.3	260.2	37,700	312,800
90	72.1	258.6		275,900
95	71.0	256.8		242,500
100	69.8	254.9		212,000
105	68.6	252.9		184,200
110	67.4	250.8		158,800
115	66.2	248.6		135,300
120	65.0	246.2		113,600
125	63.8	243.7		93,600
130	62.6	241.1		74,900
135	61.3	238.3		57,600
140	60.1	235.4		41,400
145	58.8	232.3		26,200

282.2 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.8	289.6	500,000	585,600
50	81.8	288.8	398,200	585,600
55	80.7	287.9	316,900	585,600
60	79.7	287.0	250,400	568,800
65	78.7	286.0	195,100	504,200
70	77.6	284.8	148,200	447,400
75	76.6	283.6	107,200	396,900
80	75.5	282.3	71,700	351,900
85	74.5	280.8	40,700	311,400
90	73.4	279.3		274,900
95	72.3	277.7		241,800
100	71.3	275.9		211,700
105	70.2	274.1		184,100
110	69.1	272.1		158,800
115	68.0	270.1		135,500
120	66.9	267.9		114,000
125	65.8	265.6		94,100
130	64.7	263.2		75,500
135	63.5	260.7		58,300
140	62.4	258.0		42,100
145	61.2	255.2		27,000

MLC650 VPC-MAX S-2

ASME B30.5

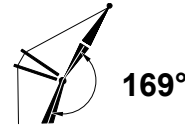
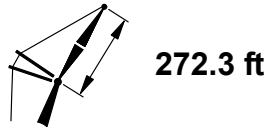


183.7 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
32	83.0	192.0	773,600	773,600
34	82.4	191.7	772,200	773,600
36	81.7	191.4	693,400	773,600
38	81.1	191.0	624,100	773,600
40	80.5	190.6	562,900	773,600
45	78.9	189.6	436,600	773,600
50	77.3	188.4	338,000	738,600
55	75.7	187.1	257,800	642,700
60	74.0	185.6	192,200	560,900
65	72.4	183.9	137,500	490,400
70	70.7	182.1	91,300	429,000
75	69.1	180.2	51,700	375,000
80	67.4	178.0	17,400	327,200
85	65.6	175.7		284,500
90	63.9	173.2		246,200
95	62.1	170.5		211,700
100	60.3	167.5		180,400
105	58.5	164.4		151,900
110	56.6	161.1		125,800
115	54.7	157.5		101,800
120	52.7	153.6		79,700
125	50.7	149.4		59,400
130	48.6	145.0		40,500
135	46.4	140.1		22,900

203.4 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
36	82.5	211.3	707,900	773,600
38	82.0	211.0	638,200	773,600
40	81.4	210.7	576,500	773,600
45	80.0	209.7	449,500	773,600
50	78.5	208.6	350,800	738,300
55	77.1	207.4	271,200	644,200
60	75.6	206.1	205,200	563,900
65	74.2	204.6	150,300	494,500
70	72.7	203.0	103,800	433,900
75	71.2	201.3	64,000	380,500
80	69.7	199.4	29,500	333,200
85	68.2	197.3		291,000
90	66.6	195.1		253,100
95	65.1	192.7		218,800
100	63.5	190.1		187,800
105	61.9	187.4		159,400
110	60.2	184.5		133,500
115	58.6	181.4		109,700
120	56.9	178.1		87,800
125	55.2	174.5		67,500
130	53.4	170.8		48,600
135	51.6	166.7		31,100

MLC650 VPC-MAX S-2

ASME B30.5

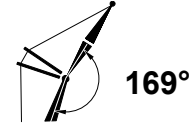


223.1 ft				
ft	°	ft	lb	lb
38	82.7	230.9	645,600	728,800
40	82.2	230.6	583,600	728,800
45	80.9	229.8	455,900	728,800
50	79.6	228.8	356,700	728,800
55	78.2	227.7	277,400	640,500
60	76.9	226.5	211,800	561,400
65	75.6	225.1	156,600	493,000
70	74.3	223.7	109,900	433,100
75	72.9	222.1	69,900	380,400
80	71.6	220.4	35,200	333,600
85	70.2	218.5		291,800
90	68.8	216.5		254,200
95	67.4	214.4		220,300
100	66.0	212.1		189,400
105	64.6	209.7		161,300
110	63.1	207.1		135,500
115	61.7	204.4		111,900
120	60.2	201.5		90,000
125	58.7	198.4		69,800
130	57.1	195.1		51,100
135	55.6	191.6		33,700
140	54.0	187.9		17,400

242.8 ft				
ft	°	ft	lb	lb
40	82.8	250.5	592,000	683,200
45	81.6	249.7	463,600	683,200
50	80.4	248.8	363,900	683,200
55	79.2	247.8	284,300	637,300
60	78.0	246.7	219,200	559,800
65	76.8	245.5	164,000	492,500
70	75.6	244.2	117,100	433,600
75	74.3	242.7	77,000	381,600
80	73.1	241.2	42,100	335,300
85	71.9	239.5		294,000
90	70.6	237.7		256,800
95	69.3	235.8		223,100
100	68.1	233.7		192,500
105	66.8	231.5		164,600
110	65.5	229.2		139,000
115	64.2	226.7		115,500
120	62.8	224.1		93,700
125	61.5	221.3		73,700
130	60.1	218.4		55,000
135	58.7	215.3		37,600
140	57.3	212.1		21,400

MLC650 VPC-MAX S-2

ASME B30.5

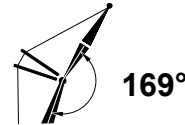
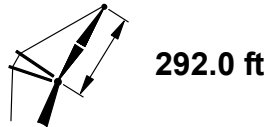


262.5 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.3	269.7	470,200	634,400
50	81.1	268.8	370,100	634,400
55	80.0	267.9	290,100	632,400
60	78.9	266.9	224,700	556,700
65	77.8	265.8	170,300	490,800
70	76.7	264.6	123,300	432,900
75	75.6	263.2	83,000	381,700
80	74.4	261.8	48,000	336,100
85	73.3	260.2	17,500	295,300
90	72.1	258.6		258,500
95	71.0	256.8		225,100
100	69.8	254.9		194,800
105	68.6	252.9		167,100
110	67.4	250.8		141,700
115	66.2	248.6		118,400
120	65.0	246.2		96,800
125	63.8	243.7		76,800
130	62.6	241.1		58,300
135	61.3	238.3		41,000
140	60.1	235.4		24,900

282.2 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.8	289.6	474,900	585,600
50	81.8	288.8	374,300	585,600
55	80.7	287.9	294,000	585,600
60	79.7	287.0	228,300	551,200
65	78.7	286.0	173,600	486,800
70	77.6	284.8	127,300	430,100
75	76.6	283.6	86,900	379,700
80	75.5	282.3	51,800	334,800
85	74.5	280.8	21,100	294,500
90	73.4	279.3		258,100
95	72.3	277.7		225,200
100	71.3	275.9		195,100
105	70.2	274.1		167,700
110	69.1	272.1		142,400
115	68.0	270.1		119,200
120	66.9	267.9		97,800
125	65.8	265.6		77,900
130	64.7	263.2		59,500
135	63.5	260.7		42,300
140	62.4	258.0		26,200

MLC650 VPC-MAX S-2

ASME B30.5

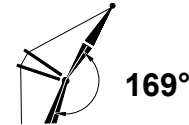
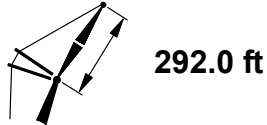


183.7 ft				
ft	°	ft	lb	lb
32	83.0	192.0	773,600	773,600
34	82.4	191.7	712,400	773,600
36	81.7	191.4	635,000	773,600
38	81.1	191.0	567,000	773,600
40	80.5	190.6	506,900	773,600
45	78.9	189.6	382,900	773,600
50	77.3	188.4	286,200	695,700
55	75.7	187.1	207,400	600,200
60	74.0	185.6	142,900	518,700
65	72.4	183.9	89,300	448,500
70	70.7	182.1	43,900	387,300
75	69.1	180.2		333,600
80	67.4	178.0		286,000
85	65.6	175.7		243,500
90	63.9	173.2		205,400
95	62.1	170.5		171,100
100	60.3	167.5		140,000
105	58.5	164.4		111,600
110	56.6	161.1		85,700
115	54.7	157.5		61,900
120	52.7	153.6		39,900
125	50.7	149.4		19,700

203.4 ft				
ft	°	ft	lb	lb
36	82.5	211.3	651,300	773,600
38	82.0	211.0	582,900	773,600
40	81.4	210.7	522,400	773,600
45	80.0	209.7	397,700	773,600
50	78.5	208.6	300,800	697,300
55	77.1	207.4	222,700	603,700
60	75.6	206.1	157,900	523,600
65	74.2	204.6	104,000	454,500
70	72.7	203.0	58,400	394,100
75	71.2	201.3	19,300	341,000
80	69.7	199.4		294,000
85	68.2	197.3		251,900
90	66.6	195.1		214,200
95	65.1	192.7		180,100
100	63.5	190.1		149,200
105	61.9	187.4		121,100
110	60.2	184.5		95,300
115	58.6	181.4		71,600
120	56.9	178.1		49,800
125	55.2	174.5		29,600

MLC650 VPC-MAX S-2

ASME B30.5

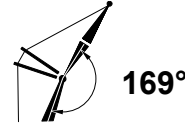
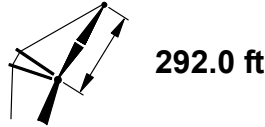


223.1 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
38	82.7	230.9	591,900	728,800
40	82.2	230.6	531,000	728,800
45	80.9	229.8	405,600	728,800
50	79.6	228.8	308,200	693,500
55	78.2	227.7	230,500	601,600
60	76.9	226.5	166,100	522,800
65	75.6	225.1	111,900	454,600
70	74.3	223.7	66,000	395,000
75	72.9	222.1	26,800	342,600
80	71.6	220.4		296,000
85	70.2	218.5		254,400
90	68.8	216.5		217,000
95	67.4	214.4		183,200
100	66.0	212.1		152,500
105	64.6	209.7		124,500
110	63.1	207.1		98,900
115	61.7	204.4		75,300
120	60.2	201.5		53,600
125	58.7	198.4		33,600

242.8 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
40	82.8	250.5	540,700	683,200
45	81.6	249.7	414,700	683,200
50	80.4	248.8	316,800	683,200
55	79.2	247.8	238,600	599,900
60	78.0	246.7	174,800	522,700
65	76.8	245.5	120,700	455,600
70	75.6	244.2	74,600	396,900
75	74.3	242.7	35,200	345,100
80	73.1	241.2		299,100
85	71.9	239.5		257,900
90	70.6	237.7		220,900
95	69.3	235.8		187,400
100	68.1	233.7		156,900
105	66.8	231.5		129,100
110	65.5	229.2		103,700
115	64.2	226.7		80,300
120	62.8	224.1		58,700
125	61.5	221.3		38,700
130	60.1	218.4		20,200

MLC650 VPC-MAX S-2

ASME B30.5

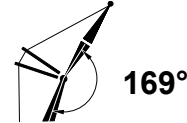
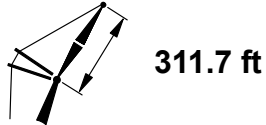


262.5 ft				
ft	°	ft	lb	lb
45	82.3	269.7	422,300	634,400
50	81.1	268.8	324,100	634,400
55	80.0	267.9	245,600	596,300
60	78.9	266.9	181,400	520,900
65	77.8	265.8	128,000	455,200
70	76.7	264.6	81,900	397,500
75	75.6	263.2	42,400	346,500
80	74.4	261.8		301,100
85	73.3	260.2		260,400
90	72.1	258.6		223,800
95	71.0	256.8		190,600
100	69.8	254.9		160,400
105	68.6	252.9		132,900
110	67.4	250.8		107,600
115	66.2	248.6		84,400
120	65.0	246.2		62,900
125	63.8	243.7		43,000
130	62.6	241.1		24,600

282.2 ft				
ft	°	ft	lb	lb
45	82.8	289.6	428,000	585,600
50	81.8	288.8	329,300	585,600
55	80.7	287.9	250,400	585,600
60	79.7	287.0	186,000	516,600
65	78.7	286.0	132,300	452,400
70	77.6	284.8	86,900	395,800
75	76.6	283.6	47,200	345,700
80	75.5	282.3		300,900
85	74.5	280.8		260,800
90	73.4	279.3		224,500
95	72.3	277.7		191,700
100	71.3	275.9		161,800
105	70.2	274.1		134,400
110	69.1	272.1		109,400
115	68.0	270.1		86,300
120	66.9	267.9		64,900
125	65.8	265.6		45,100
130	64.7	263.2		26,800

MLC650 VPC-MAX S-2

ASME B30.5

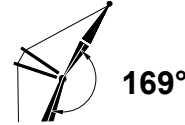
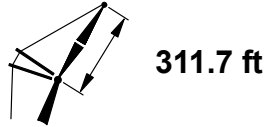


183.7 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
32	83.0	192.0	765,600	773,600
34	82.4	191.7	677,700	773,600
36	81.7	191.4	601,200	773,600
38	81.1	191.0	534,100	773,600
40	80.5	190.6	474,700	773,600
45	78.9	189.6	352,300	773,600
50	77.3	188.4	256,700	671,800
55	75.7	187.1	178,900	576,600
60	74.0	185.6	115,300	495,400
65	72.4	183.9	62,300	425,400
70	70.7	182.1	17,500	364,400
75	69.1	180.2		310,900
80	67.4	178.0		263,400
85	65.6	175.7		221,100
90	63.9	173.2		183,200
95	62.1	170.5		149,000
100	60.3	167.5		118,000
105	58.5	164.4		89,700
110	56.6	161.1		63,900
115	54.7	157.5		40,200
120	52.7	153.6		18,400

203.4 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
36	82.5	211.3	618,800	773,600
38	82.0	211.0	551,200	773,600
40	81.4	210.7	491,400	773,600
45	80.0	209.7	368,200	773,600
50	78.5	208.6	272,600	674,800
55	77.1	207.4	195,500	581,400
60	75.6	206.1	131,500	501,600
65	74.2	204.6	78,300	432,600
70	72.7	203.0	33,200	372,500
75	71.2	201.3		319,600
80	69.7	199.4		272,700
85	68.2	197.3		230,800
90	66.6	195.1		193,200
95	65.1	192.7		159,300
100	63.5	190.1		128,500
105	61.9	187.4		100,400
110	60.2	184.5		74,800
115	58.6	181.4		51,200
120	56.9	178.1		29,500

MLC650 VPC-MAX S-2

ASME B30.5

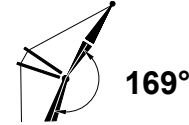
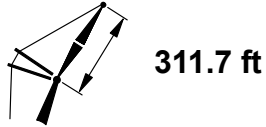


223.1 ft				
ft	°	ft	lb	lb
38	82.7	230.9	561,100	728,800
40	82.2	230.6	501,000	728,800
45	80.9	229.8	377,200	728,800
50	79.6	228.8	281,100	672,100
55	78.2	227.7	204,300	580,300
60	76.9	226.5	140,700	501,800
65	75.6	225.1	87,200	433,800
70	74.3	223.7	42,000	374,400
75	72.9	222.1		322,100
80	71.6	220.4		275,700
85	70.2	218.5		234,300
90	68.8	216.5		197,000
95	67.4	214.4		163,300
100	66.0	212.1		132,800
105	64.6	209.7		104,900
110	63.1	207.1		79,400
115	61.7	204.4		56,000
120	60.2	201.5		34,300

242.8 ft				
ft	°	ft	lb	lb
40	82.8	250.5	511,600	683,200
45	81.6	249.7	387,100	683,200
50	80.4	248.8	290,500	669,400
55	79.2	247.8	213,300	579,700
60	78.0	246.7	150,300	502,600
65	76.8	245.5	96,900	435,800
70	75.6	244.2	51,400	377,300
75	74.3	242.7		325,600
80	73.1	241.2		279,700
85	71.9	239.5		238,700
90	70.6	237.7		201,800
95	69.3	235.8		168,400
100	68.1	233.7		138,100
105	66.8	231.5		110,400
110	65.5	229.2		85,100
115	64.2	226.7		61,800
120	62.8	224.1		40,300
125	61.5	221.3		20,400

MLC650 VPC-MAX S-2

ASME B30.5

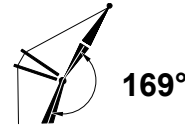
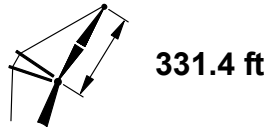


262.5 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.3	269.7	395,600	634,400
50	81.1	268.8	298,500	634,400
55	80.0	267.9	221,000	576,900
60	78.9	266.9	157,700	501,600
65	77.8	265.8	105,000	436,100
70	76.7	264.6	59,500	378,700
75	75.6	263.2	20,400	327,800
80	74.4	261.8		282,600
85	73.3	260.2		242,000
90	72.1	258.6		205,500
95	71.0	256.8		172,400
100	69.8	254.9		142,400
105	68.6	252.9		114,900
110	67.4	250.8		89,800
115	66.2	248.6		66,600
120	65.0	246.2		45,200
125	63.8	243.7		25,400

282.2 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
45	82.8	289.6	401,800	585,600
50	81.8	288.8	304,400	583,000
55	80.7	287.9	226,500	571,500
60	79.7	287.0	162,900	498,200
65	78.7	286.0	110,000	434,100
70	77.6	284.8	65,200	377,700
75	76.6	283.6	25,900	327,700
80	75.5	282.3		283,100
85	74.5	280.8		243,100
90	73.4	279.3		207,000
95	72.3	277.7		174,200
100	71.3	275.9		144,400
105	70.2	274.1		117,200
110	69.1	272.1		92,200
115	68.0	270.1		69,200
120	66.9	267.9		47,900
125	65.8	265.6		28,200

MLC650 VPC-MAX S-2

ASME B30.5

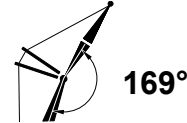
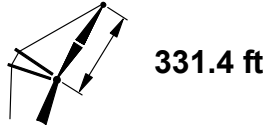


183.7 ft				
ft	°	ft	lb	lb
32	83.0	192.0	721,600	773,600
34	82.4	191.7	635,100	773,600
36	81.7	191.4	559,800	773,600
38	81.1	191.0	493,700	773,600
40	80.5	190.6	435,200	773,600
45	78.9	189.6	314,700	755,400
50	77.3	188.4	220,600	642,500
55	75.7	187.1	143,900	547,600
60	74.0	185.6	81,300	466,700
65	72.4	183.9	29,100	397,000
70	70.7	182.1		336,300
75	69.1	180.2		282,900
80	67.4	178.0		235,700
85	65.6	175.7		193,600
90	63.9	173.2		155,800
95	62.1	170.5		121,800
100	60.3	167.5		90,900
105	58.5	164.4		62,800
110	56.6	161.1		37,200

203.4 ft				
ft	°	ft	lb	lb
36	82.5	211.3	578,800	773,600
38	82.0	211.0	512,300	773,600
40	81.4	210.7	453,400	773,600
45	80.0	209.7	332,100	757,300
50	78.5	208.6	238,000	646,900
55	77.1	207.4	162,100	553,900
60	75.6	206.1	99,100	474,400
65	74.2	204.6	46,600	405,700
70	72.7	203.0		345,800
75	71.2	201.3		293,100
80	69.7	199.4		246,400
85	68.2	197.3		204,800
90	66.6	195.1		167,300
95	65.1	192.7		133,600
100	63.5	190.1		102,900
105	61.9	187.4		75,000
110	60.2	184.5		49,500
115	58.6	181.4		26,100

MLC650 VPC-MAX S-2

ASME B30.5

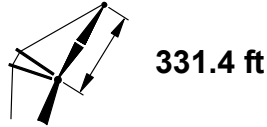


223.1 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
38	82.7	230.9	523,400	728,800
40	82.2	230.6	464,300	728,800
45	80.9	229.8	342,300	728,800
50	79.6	228.8	247,700	645,500
55	78.2	227.7	172,100	554,100
60	76.9	226.5	109,500	475,900
65	75.6	225.1	56,900	408,200
70	74.3	223.7		349,000
75	72.9	222.1		297,000
80	71.6	220.4		250,700
85	70.2	218.5		209,500
90	68.8	216.5		172,400
95	67.4	214.4		138,900
100	66.0	212.1		108,400
105	64.6	209.7		80,700
110	63.1	207.1		55,300
115	61.7	204.4		32,000

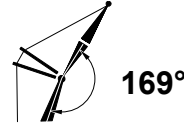
242.8 ft				
ft	°	ft	38.7 ft lb	60.0 ft lb
40	82.8	250.5	475,800	683,200
45	81.6	249.7	353,300	683,200
50	80.4	248.8	258,200	644,000
55	79.2	247.8	182,200	554,600
60	78.0	246.7	120,200	477,800
65	76.8	245.5	67,600	411,200
70	75.6	244.2	22,900	352,900
75	74.3	242.7		301,500
80	73.1	241.2		255,800
85	71.9	239.5		215,000
90	70.6	237.7		178,200
95	69.3	235.8		145,000
100	68.1	233.7		114,800
105	66.8	231.5		87,300
110	65.5	229.2		62,100
115	64.2	226.7		38,900
120	62.8	224.1		17,500

MLC650 VPC-MAX S-2

ASME B30.5



331.4 ft



169°

262.5 ft				
ft	°	ft	lb	lb
45	82.3	269.7	362,600	634,400
50	81.1	268.8	267,100	634,400
55	80.0	267.9	190,800	552,900
60	78.9	266.9	128,500	477,900
65	77.8	265.8	76,700	412,600
70	76.7	264.6	31,900	355,300
75	75.6	263.2		304,700
80	74.4	261.8		259,600
85	73.3	260.2		219,200
90	72.1	258.6		182,900
95	71.0	256.8		150,000
100	69.8	254.9		120,100
105	68.6	252.9		92,700
110	67.4	250.8		67,700
115	66.2	248.6		44,600
120	65.0	246.2		23,400

282.2 ft				
ft	°	ft	lb	lb
45	82.8	289.6	369,700	568,000
50	81.8	288.8	273,700	561,000
55	80.7	287.9	197,100	548,500
60	79.7	287.0	134,500	475,400
65	78.7	286.0	82,400	411,500
70	77.6	284.8	38,300	355,300
75	76.6	283.6		305,500
80	75.5	282.3		261,000
85	74.5	280.8		221,200
90	73.4	279.3		185,200
95	72.3	277.7		152,600
100	71.3	275.9		122,900
105	70.2	274.1		95,800
110	69.1	272.1		70,900
115	68.0	270.1		48,000
120	66.9	267.9		26,900